




3 1761 11701889 5



Digitized by the Internet Archive
in 2023 with funding from
University of Toronto

Canada Royal commission on
employment of firemen on diesel
locomotives in freight and yard
service on the Canadian Pacific
Railway.

Proceedings. 1957.

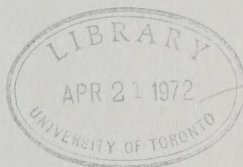
no. 46 — 48.

4
746

**ROYAL COMMISSION ON EMPLOYMENT OF FIREMEN
ON DIESEL LOCOMOTIVES IN FREIGHT AND YARD
SERVICE ON THE CANADIAN PACIFIC RAILWAY**

46-48
21

PROCEEDINGS



DATE: June 3, 1957

PLACE: Ottawa, Ont.

PAGES: 6#12 - 6579

VOLUME: 46

E. L. FEATHERSTON
SHORTHAND REPORTER
241 MANOR AVENUE
ROCKCLIFFE PARK
OTTAWA, CANADA

Mr. Fraser

June 4/57

I N D E X

Witnesses

FORSEY, Dr. Eugene	6414
BRUNNER, Walter, Exam. by Mr. Lewis	6421
CONNOR, Virgil Thomas, Exam. by Mr. Lewis	6516

EXHIBITS

No. 229 - Submission, Canadian Labour Congress	6419
230 - Sketch, Cranbrook yard	6440
231 - Sketch, Yahk yard	6446
232 - Sketch, Creston yard	6453
233 - Sketch, Procter yard	6469
234 - Sketch, Wardner yard	6483
235 - Sketch, Fernie yard	6486
236 - Sketch, Michel yard	6490
237 - Sketch, Golden yard	6497
238 - Sketch, Fort Macleod yard	6548
239 - Sketch, Coleman yard	6567

ROYAL COMMISSION ON EMPLOYMENT OF
FIREMEN ON DIESEL LOCOMOTIVES IN
FREIGHT AND YARD SERVICE ON THE
CANADIAN PACIFIC RAILWAY

Proceedings of public
hearing held at Ottawa,
Ontario, Monday,
June 3, 1957

PRESENT:

Hon. R. L. Kellock,	Chairman
Hon. C. C. McLaurin,	Member
Hon. Jean Martineau,	Member
Douglas M. Fraser,	Secretary
A. R. Winship,	Asst. Secretary

APPEARANCES:

D. W. Mundell, Q.C.,	Representing the
C. J. A. Hughes, Q.C.,	Commission
I. D. Sinclair,	Representing the
Allan Findlay,	Canadian Pacific Railway Company
David Lewis,	Representing the Brotherhood of Locomotive Firemen and Enginemen

Monday,
June 3, 1957.

46th DAY

MORNING SESSION

----The Commission resumed at 10.00 a.m.

THE CHAIRMAN: I understand that Dr. Forsey is here. You have the right-of-way, Dr. Forsey.

DR. EUGENE FORSEY: Mr. Chairman and members of the Commission, the Canadian Labour Congress has a very direct and considerable interest in the matters you are investigating. In the first place, as the central organization with which the Brotherhood of Locomotive Firemen and Enginemen is affiliated, it is interested in the fate of the workers concerned.

Second, its more than one million members, with their families, make up a large part of the travelling public which uses the railways, the producing and consuming public whose goods are carried on the railways, and what might be called the innocent bystander public whose lives and property may be endangered simply because they are near-by when accidents take place.

Both as a representative of the workers and as a representative of the public, the Congress' main concern is, of course, safety. This, it submits, should be the main, indeed the overmastering consideration in any answer to the first of the three questions you are required to answer: "Are firemen (or firemen helpers) required on diesel locomotives in freight and yard service of the Canadian Pacific Railway?"

If safety dictates the answer, "Yes", then, in the Congress' opinion, that must be decisive. There may, of course, be sufficient reasons for retaining the firemen in road freight and yard service altogether apart from safety. The Congress does not wish in any way to prejudge that question, on which it is not in a position to offer you any evidence or opinions beyond what you have already received, or will receive, from the Brotherhood. The Congress' point is that even if you decide that there are no such sufficient reasons, that should not settle what your answer should be. The main question would still remain: "Is it safe to dispense with the firemen?"

Absolute safety is, of course, unattainable, and the Congress is not suggesting that all traffic should be slowed to ten miles an hour, or that every locomotive should have a crew of half a dozen, or anything of that sort, in an effort to attain it. Clearly, there are practical limits to the safety measures which any railway can take if it is to operate efficiently and economically. But the Congress cannot emphasize too strongly its conviction that every reasonable safety measure must be taken, even if the economic cost is high. A saving even of many millions of dollars

may be very heavily purchased at the cost of a single human life.

The Congress does not propose to offer evidence on the safety question. You have already had a wealth of evidence on it, and from the people best qualified to give it. Any further evidence you need will no doubt be forthcoming from the same sources. The Congress has been impressed by the thoroughness with which the evidence has been presented and examined, and indeed by the thoroughness and fairness of your whole inquiry. It is clear that you are sparing no effort to get at the facts, and to give the parties every possible opportunity and facility to present their case. This in itself is a notable public service, and your report, based on such an inquiry, can scarcely fail to be of immense value to the parties, and to the whole country, when your work is finished and the railway and the Brotherhood have to negotiate a settlement.

If your answer to the first question is that firemen are required, then of course the second will not arise. None the less, the Congress wishes to say something on the second question, not only in the interests of the firemen themselves (should your answer to the first question be "No", or even a qualified "No"), but also

because, with the increasing pace of technological change, this kind of question is certain to recur, and recur often, in various industries, and your answer to it (if you are obliged to give one), may serve as a precedent for thousands upon thousands of workers. The Congress' own view may also be of some importance for future cases.

If you find the firemen are not required, the question of what is to be done about them will, of course, be a matter of negotiation between the Brotherhood and the railway. The Congress understands the railway has already made new proposals to the Brotherhood. The Congress does not wish to prejudice future negotiations by commenting on these proposals now. It contents itself with submitting that, as a matter of social policy, employers contemplating a technological change affecting a whole craft should be guided by the principle that no one who has been employed in that craft for more than a year shall suffer loss of income.

The Congress wishes to add a few general observations. The first is that if technological change is to take place without disrupting people's lives and causing strikes, it is essential that management should take the workers and

their unions into its confidence on proposed changes at the earliest possible moment, and try to work out methods of meeting the problems involved before they become critical. The Congress ventures to think that in this case this principle was not followed as fully as it might have been, and that if there had been full and frank exchanges long before the issue reached the Conciliation Board, many of the subsequent difficulties might have been avoided.

The second observation is that the company might have been well advised to issue a year or more ago, and after consultation with the Brotherhood, the kind of bulletins it has been issuing recently on the subject of firemen's duties. There would then have been more experience to go on in deciding how necessary the firemen were, and there would not have been the appearance of acting only under the shadow of this Commission's existence.

The third observation is that "he gives twice who gives quickly": that the company might have been well advised to make to the Brotherhood during negotiations the offer which it has made now.

The whole question of technological change, and how to meet the economic and social problems it can raise, needs careful

and continuing study. The Congress urged the government to appoint this Commission to study this particular case, and is naturally gratified by the appointment and its results. The Congress also, over a year ago, urged the government to appoint a tripartite committee, representing government, management and labour, to study the general problem, and make recommendations on it; and the Congress is glad to say that the government has now agreed to do so, and the committee is in process of formation. If this committee is effective, particular cases of difficulty such as you are dealing with may not arise in the future.

On the third, highly technical, question submitted to you, the Congress has nothing to offer beyond what you have already heard, or will hear, from the Brotherhood.

THE CHAIRMAN: Does that complete your submission?

DR. FORSEY: Yes, that completes it.

THE CHAIRMAN: I think perhaps the best thing to do would be to mark that submission as an exhibit.

EXHIBIT 229 -- Submission,
Canadian Labour
Congress.

THE CHAIRMAN: I think I can say on behalf of my fellow Commissioners and myself that we are obliged to you for this submission and we are very glad to have the views of your organization. If I may venture to say, knowing you as I do, I appreciate the way in which it has been presented to us. While Dr. Forsey is here I do not suppose there are any questions that you wish to ask?

MR. SINCLAIR: I have nothing that I wish to ask Dr. Forsey. I have had that privilege on other occasions and I do not wish to exercise it now.

THE CHAIRMAN: Nor you, Mr. Lewis?

MR. LEWIS: Mr. Chairman, I have no questions but I might add that since I was an undergraduate at McGill University when Dr. Forsey was lecturing back in 1927 I have always appreciated Dr. Forsey's penchant for exactitude and therefore I should like to point out to him that the statement on page 3 that the railway has already made new proposals to the Brotherhood is a little erroneous. The proposal was made to this Commission; it had not yet been made to the Brotherhood.

DR. FORSEY: I stand corrected.

THE CHAIRMAN: You find nothing else wrong with the submission?

MR. LEWIS: No. My next witness will be Mr. Walter Brunner.

WALTER BRUNNER, sworn.

EXAMINED BY Mr. LEWIS:

Q Mr. Brunner, you are now a conductor in pool freight service?

A That is right.

Q Running out of Cranbrook, British Columbia?

A That is right.

Q You told me you joined the Canadian Pacific Railway as a brakeman on March 21, 1924?

A That is correct.

Q And that you were employed as a brakeman continuously until you were classed as a conductor in January, 1940?

A That is right.

Q You were running as a conductor and brakeman until you were set up as a regular conductor sometime after the end of the war?

A That is right.

Q That was somewhere around 1946?

A Somewhere around that would be about right.

Q Your experience has been mostly in freight, in fact almost all of it in freight service although you have had

1. The first part of the paper is devoted to a general discussion of the problem.

2. The second part is devoted to a detailed analysis of the case of a single particle.

3. The third part is devoted to a detailed analysis of the case of a system of particles.

4. The fourth part is devoted to a detailed analysis of the case of a system of particles.

5. The fifth part is devoted to a detailed analysis of the case of a system of particles.

6. The sixth part is devoted to a detailed analysis of the case of a system of particles.

7. The seventh part is devoted to a detailed analysis of the case of a system of particles.

8. The eighth part is devoted to a detailed analysis of the case of a system of particles.

9. The ninth part is devoted to a detailed analysis of the case of a system of particles.

10. The tenth part is devoted to a detailed analysis of the case of a system of particles.

11. The eleventh part is devoted to a detailed analysis of the case of a system of particles.

12. The twelfth part is devoted to a detailed analysis of the case of a system of particles.

13. The thirteenth part is devoted to a detailed analysis of the case of a system of particles.

14. The fourteenth part is devoted to a detailed analysis of the case of a system of particles.

some spare trips with passenger trains?

A That is right.

Q And you have worked out of Cranbrook, the place you work out of now, and also out of Macleod, Alberta, and out of Lethbridge, Alberta?

A That is right.

Q You have worked throughout Southern Alberta on the Canadian Pacific and also in many parts of British Columbia?

A That is correct.

Q You have told me that your record with the company has been fairly good although you have had some demerit marks over the years?

A I have had my quota.

Q Of demerits?

A Yes.

Q You are a member of the Brotherhood of Railroad Trainmen and Alternative Legislative Representative in your lodge?

A That is right.

Q And you have held office in the local lodge on a number of occasions?

A That is right.

Q Now, in your present work, Mr. Brunner, you work what subdivision?

A I work the Nelson Subdivision.

Q Which stretches from where to where?

A From Cranbrook to Nelson, a distance of 138 miles.

Q Yes?

A I work the Cranbrook subdivision, Cranbrook to Crowsnest, a distance of 99 miles. I work the Lake Windermere subdivision, a distance of 195 miles, 28 miles of which goes over the Cranbrook subdivision to Colvalli, and the Kimberley subdivision, a distance of 18 miles and return.

Q From Cranbrook to Kimberley and return?

A Which is a short subdivision.

Q You told the Commission that you worked the Lake Windermere subdivision which runs some 28 miles on the Cranbrook subdivision, that is, east from Cranbrook to Colvalli?

A That is right, on the Cranbrook subdivision for 28 miles, and then the Lake Windermere subdivision, 167 miles.

Q And that would be north from Colvalli to Golden?

A That is right.

THE CHAIRMAN: What is the number of that exhibit, the map?

MR. SINCLAIR: No. 8.

MR. LEWIS: 8-A, I think.

MR. SINCLAIR: 8-A.

BY MR. LEWIS:

Q It might help the Commission, Mr. Brunner, if you would indicate it on this map, Exhibit 8-A. Your first is the Nelson subdivision, is it?

A That is correct. You are on the main line there. Here is the Lake Windermere subdivision going up here.

MR. LEWIS: When the witness says "up here", Mr. Chairman, he is pointing at the Lake Windermere subdivision which starts at Colvalli which is towards the bottom right-hand corner, and it is a blue line and goes up north to Golden. Colvalli is about an inch and a quarter west of Crowsnest down at the bottom line of Exhibit 8-A towards the right. Colvalli stretches to Golden and that is the Lake Windermere subdivision. It starts at Cranbrook, which is the second stop west of Colvalli. There is Colvalli and then North Star and then Cranbrook. It goes east to Colvalli and then north to Golden.

The Kimberley subdivision, sir, is shown in red, and it starts at Kimberley and goes south to North Star.

BY MR. LEWIS:

Q Is that it?

A Yes. Well, that is where we cut in. There is no North Star any more. They have taken that out of the time card. It just branches into the main line of the Cranbrook subdivision.

Q You go from Kimberley south to what is shown as North Star on Exhibit 8-A and then west to Cranbrook?

A That is right. It is only a mile. We start from Cranbrook and go to Kimberley and turn and come back to Cranbrook.

THE CHAIRMAN: What do you call that?

MR. LEWIS: That is the Kimberley subdivision, sir. Would you like the witness to go through the other two subdivisions on this map, if they are shown? I am not sure they are. Nelson to Cranbrook must be and then there is Crowsnest to Cranbrook. The Nelson subdivision starts at Cranbrook, which is where I indicated before and then goes along to Nelson. It is marked in blue. It goes west along to Nelson. There is Yahk, Procter and Nelson along the curve. Then the Cranbrook subdivision goes east from Cranbrook to Crowsnest which is the east end of the blue line.

BY THE CHAIRMAN:

Q What is the name of the subdivision from Cranbrook to Colvalli and up to Golden?

A I beg your pardon, sir?

MR. LEWIS: Lake Windermere, Cranbrook to Colvalli to Golden.

THE CHAIRMAN: All right.

BY MR. LEWIS:

Q Now, Mr. Brunner, would you briefly tell the Commission what your responsibilities and duties are as a conductor of a freight train?

A Well, my duties as a conductor is to operate

the train from one destination to the other, do the necessary work and see that my brakemen are in position to do the work, give them instructions on what -- in other words, pass on the instructions to them that I receive for what work there is.

Q Take it step by step. When you start out what are your duties? When you start at say Cranbrook what are your duties?

A My duties in Cranbrook are to go and report. I report 15 minutes before the train we are ordered for, for instance, at 12 o'clock. I come on duty at 11.45 and I check my watch and register the train and get the bills for the cars that we are getting, and that is my duty, and then deliver the orders to the engineer and pass on the instructions what we have to do along the road.

Q In the meantime are your two brakemen with you or are they outside?

A No, my head end brakeman comes on duty 15 minutes ahead of time also. In fact, we all do. The head end brakeman gets paid for that 15 minutes but the conductor and the tail end brakeman do not. The head end brakeman goes out to the shop and gets the engine and checks the flagging kit, brings the engine out to the train.

Q He knows where to take it before you go

out of the office?

A He goes into the yard office when he comes on duty and asks the yardmaster what track the train is on.

Q Then, on the road once you have started out from Cranbrook --

A The rear end brakeman goes back and opens up the caboose and puts out the markers and lights the lamps if it is nighttime and he is prepared then to move off too.

Q And then you couple on to your train. We will come back to that later with the help of the sketch, Mr. Brunner. You marshal your train, you couple on to it and you get going. "Marshal" is perhaps not the correct word. You couple on to it and double up if necessary?

A That is if we are ready to leave. If we are called to switch we sometimes have to double over or make up our own train, depending on what yard we are in.

Q On the road what would be your duties and the duties of the two brakemen?

A My duties is to see that the brakemen are in position, to see that the brakemen understand the train orders before we leave, of course, and then en route compare train orders and watch for meets and watch the running of the train. The rear end brakeman rides in the cupola and watches the running gear

of the train, the side of the train wherever possible, and he informs me. I usually have to do some work when we first start out, book work, and he will inform me if he sees anything amiss, and the head end brakeman, he is riding up in the locomotive and he looks back at every opportunity to watch the train to see how it runs and when he has looked back and he sees everything is all right he looks ahead. He also is responsible to see that the meets are lived up to in the train orders and slow orders and speed limits and call the attention of the engineer or the fireman, both, if that is exceeded or if, we will say, we have a meet order at a certain point he will remind them that we have a meet down here on this train.

Q Now, before I take you to some sketches, do you recall an incident which occurred last April at Elko?

A Yes, I do. We were westbound --

Q From where to where?

A From Crowsnest to Cranbrook.

Q Yes?

A And we got -- at Fernie we got a time order on No. 980, a second-class train, a superior train to us.

Q What do you mean by a time order?

- A That he would wait at Caithness until a certain time which gave us time to go to Elko, and we had in the vicinity of 70 cars. I believe it was 76 cars, if I remember right, and we got a message at the same time when he gave us the orders that 980 had 69 cars and it would be necessary for us to double over. After we got into the siding we would have to pull through the siding until the caboose was into the clear at the east end and then double into the back track which was also at the east end of this yard.
- Q I suppose because the first track could not hold the 70 odd cars? Is that right?
- A I beg your pardon?
- Q You had to double over because the first track could not hold your entire train?
- A That is right. We had too many cars for the siding. There were two cars spotted in this back track at the platform which is on the west end of the back track and two boarding outfits near the east end of the back track. The time we had on this train No. 980 just gave us nice time if we pulled right in and right through and done the work quick without putting out a flag against him. The curvature there is quite -- there is quite a bit of curvature and a man to relay the

signal to the engineer has to climb up the mountainside and get up on top of the overhead bridge of the highway so he can see. He is away up above the train and looks down. The head end brakeman dropped off to climb up there so he could see and he could also see from the tail end -- to the tail end man.

Q Are you telling us what happened or what would have had to happen? Did the head end brakeman drop off and go up there?

A Yes, that is right. He dropped off. The fireman got the switch and let us out so we could continue on pulling through until our tail end was into the clear and then the fireman got back on about five cars from the engine so he could see the head end brakeman, see where the head end brakeman was so he could relay the signals, and after we got into the clear we walked up and made the cut and backed into the back track. It took the four of us to make this move and at that we nearly went over the derail, nearly shoved over the derail on the east end.

Q Where were you and the rear end brakeman when all this activity was on?

A We both walked up -- as soon as the caboose was into the clear we both walked up to
end
the cut and my rear/brakeman went high

on the cars so my head end brakeman up on
the bridge could see him and I went and threw
the switch and the 'derail and made the
joints on the cars and made the couplings as
we backed in.

W. Brunner

- Q So, you had your front end brakeman on the bridge, your rear end brakeman high on a car and the fireman high on a car?
- A That is right.
- Q At the same time you passed those signals to the engineer?
- A That is right.
- Q You were lining the switch?
- A I lined the switch and got the derail and coupled in the cars made sure the couplings were made, and it took all the room we could get to back into this siding, come very close to being derailed; relaying signals that distance is a slow procedure. One man gives a signal and then the other one and it was not as quick, as when we start signalling down. ^{We went} we another car length before -- going very slow, but it was a car length before we actually got stopped. However, there was nothing happened. With the fireman there helping us it saved us a lot of time. We would have had to stop otherwise and put a flag first.
- Q I was going to ask you about that. Could it have been done, and, if so, how could it have been done if you had three men instead of four, just your train crew and no fireman?
- A Well, in that case the head end brakeman would

W.Brunner

have had to open the switch and run, and they would have to wait until he got back up to this bridge again, which is quite a distance.

Then, he would have to give the signal for a stop when we got in the clear and then come back out and flag against 980, and we would have had to wait until the flag was out and 980 was stopped before we could make the double over, and that would have taken considerable time and delayed both trains.

Q Now, do you recall the incident that happened that you told me recently with train No.78 going east from Cranbrook?

A Yes, I can. We were going east; only had one unit, a road switcher. We had, I think, around 28 cars, and leaving Michel going eastward from Cranbrook to Crowsnest leaving Michel we came to a standstill on account of the engine slipping. The rail became frosty and wet, and the engine slowed to a standsill. The caboose was just over the east crossing, over the main highway crossing at around mileage 9. When we came up to make the cut on the double the engine was out of line --

Q What do you mean by saying, "To make a cut on the double"?

A We would have had to double because the engine could not pull any more on account of slipping. You would have to take, pull out half the train

W.Brunner

up to McGillvray --

Q And then come back to take the other half?

A Yes. The flagman went out as soon as we stopped and I walked up to make the cut, and there was a bridge just a few cars beyond this crossing, about 15 cars or so, anyway, just came to the right amount where I was going to make the cut. I could not cross this bridge in the sideway, no room on the side to get by the bridge. The engine was out of the side, and it was a sharp lefthand curve. The signal had to be given to the fireman. The head end brakeman came back also to make the cut, and he went back half way up between where I was and the engine to repeat my signal so that we could go as the slack was out, and we had to get the pin, bring the slack in on the engine so we could pull the pin. Incidentally, in that case there was an under-slung pin. I could not pull it on the fireman's side. I had to cross over to get the pin on the other side. We went along, crossed their again and gave the signal to go ahead. I could not have given the signal to the man over on the engine; he had to be half way back between the engine and where I was repeating the signal to give it to the fireman.

Q You mean the man on the top of the cars had to be half way between the engine and where you were?

A That is right.

- Q You were about 15 cars from --
- A We had about 28 to 30 cars and it was about 15 cars -- he would be back about eight cars so he could give the signal to the man to see the signal.
- Q If he would be on the second or third car from the engine could he have seen you?
- A He was back pretty near to where I was making the cut. We had to walk say about six cars before he could see the engine. I really do not know.
- Q If he had been closer --
- A If he had been closer to the engine he might have been able to see me, but I could not see the engine and the first two or three cars. We only had a short train. Had we had a longer train it would have been much different and much worse.
- Q On the subdivisions which you cover, Mr. Brunner, do you do much switching on the road?
- A Yes, we do considerable switching. Not every trip do we do switching, heavy switching, but we do considerable switching.
- Q On the Nelson subdivision what are your main switching points?
- A The main switching points are Yahk, Preston and Proctor.
- Q On your Cranbrook subdivision, what are your main switching points?

W. Brunner

- A Wardner, Colvalli, Fernie and Michel.
- Q We will come to the other subdivisions later, Mr. Brunner. You give the Commission, from your experience, the general conditions with regard to switching in these various points.
- A Well, Mr. Chairman, at this particular point, not only this point, but all points where we do switching in our territory there is much curvature, and in nine months of the year we have snow that is so high on the sides you could not possibly walk up to give signals. We are blocked by trees and rock cuts, and where there is none of them there is buildings. We have to work on both sides. Fifty per cent of the time we work on the fireman's side and 50 per cent on the engineer's side, I would say at all our switching points.
- Q Do you do your switching late in the day time or mainly at night or what?
- A No; it seems to me it is mostly night time. So seldom do we work days that we hardly know how to work in day time.
- Q And at all these subdivisions are you concerned with the question of time consumed in your switching or is that of any significance?
- A Oh, you bet it is, certainly it is. When we go to do any switching we estimate the time it will take and we have to know this so as to clear superior trains, and give an



11.

12.

13.

The first part of the report deals with the general situation of the country. It describes the geographical position, the climate, the population, and the main occupations of the people. It also mentions the principal cities and the main roads. The second part of the report deals with the history of the country. It describes the different periods of its history, from the earliest times to the present. It mentions the different dynasties and the different emperors. It also describes the different wars and the different revolutions. The third part of the report deals with the government of the country. It describes the different branches of the government, the different departments, and the different officials. It also describes the different laws and the different customs. The fourth part of the report deals with the economy of the country. It describes the different industries, the different trades, and the different professions. It also describes the different sources of income and the different expenses. The fifth part of the report deals with the culture of the country. It describes the different religions, the different languages, the different literatures, and the different arts. It also describes the different customs and the different traditions. The sixth part of the report deals with the military of the country. It describes the different branches of the military, the different regiments, and the different officers. It also describes the different weapons and the different tactics. The seventh part of the report deals with the education of the country. It describes the different schools, the different teachers, and the different students. It also describes the different subjects and the different methods of teaching. The eighth part of the report deals with the health of the country. It describes the different diseases, the different symptoms, and the different treatments. It also describes the different hospitals and the different doctors. The ninth part of the report deals with the justice of the country. It describes the different courts, the different judges, and the different lawyers. It also describes the different laws and the different customs. The tenth part of the report deals with the foreign relations of the country. It describes the different treaties, the different alliances, and the different conflicts. It also describes the different diplomatic missions and the different international organizations.

W. Brunner

estimate to the dispatcher so he can bring the trains against us or put out meets so we will not hold up the other trains. We give an estimate of how long we will be, and also we have to see that we clear these trains, and if we have not time to do it we have to clear the main line to let first class trains or second class trains by; so time is quite a factor in switching, in that you have to figure out sometimes fairly close, in switching operations, so you can know whether you have to head in your train or many times you cannot. Once you are down the main line you can't back your train up again without an awful lot of trouble; so time is^a very important part of this.

Q On the subdivisions on which you work, Mr. Brunner, do you or do you not have problems of obstructions on the track?

A Yes, sir, we have a lot of problems of obstructions there. Actually, the year round we have obstructions of rocks on the tracks; we have mud slides, snow slides; we have many obstructions on the track and on some divisions we have obstructions of cattle and horses. And frequently, especially on the Lake Windermere subdivision I believe the farmers drive them there so the C.P.R. will run over them and they will get paid for them.

W.Brunner

BY HON. MR.McLAURIN:

Q They are always pedigree when they are hit by the C.P.R. engines?

A Yes, that is right.

BY MR. LEWIS:

Q Mr. Brunner, when you get to a siding and you have to do some switching -- I will come back to particulars of it later -- in general what happens to your train crew? What happens to the head brakeman on the front and the rear brakeman? Where do you do your work?

A Where do we do our work?

Q Yes.

A Well, we do our work at the point that we are going to do our work. It all depends on the list, what we have on the train itself for certain places.

Q What happens? Where does the head end brakeman go; as a rule what part of the job do you give him?

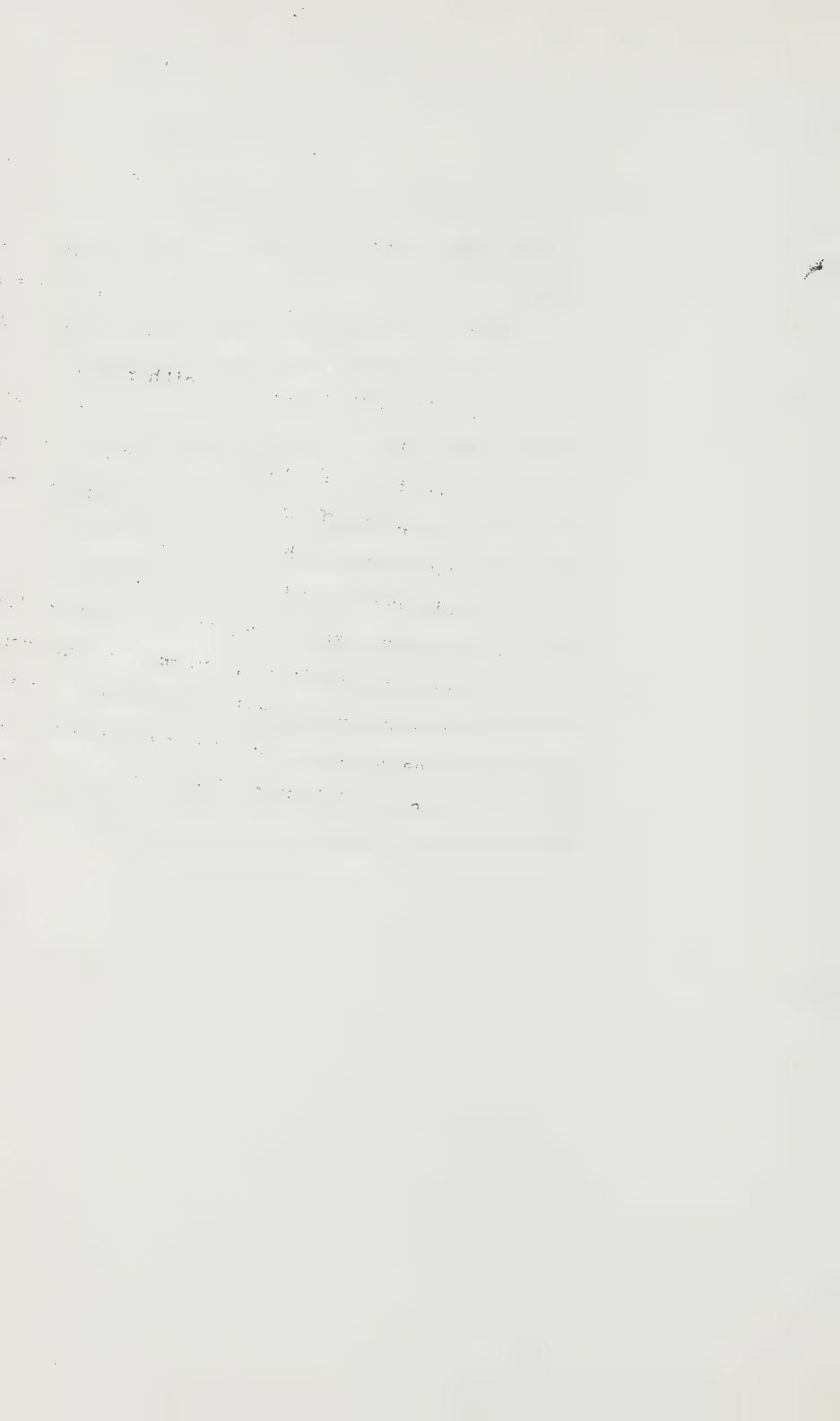
A Well, the brakeman all have the same job. They have got to be in position to repeat signals or tie in brakes, couple up air hoses, and they have got to be in position to do this. If we are setting off lead off cars we have to switch them first, lead off cars, break the air hoses on them, put them on the tracks and in working condition, and ^{after} we have to do the switching, to put the brakes on when we are leaving them there.

W.Brunner

Q And the yards that you switch off cars in this subdivision you mentioned, are they level or --

A I do not think there is any level yards on our territory; gravity yards in most cases. Either you are working all up hill or you are working down hill. In **either** case the car will either run back or when you are switching down they will run away on you, so we have a man, one of my brakemen is required to ride cars most of the time, and the other one pulls pins and does the switching.

Q In your experience, before going to these particular places, Mr.Brunner, can you not do the switching work alone on your routes, or meet an emergency such as the incidents described before without a fireman on the engine?



A No, I absolutely require a man on the left-hand side of the engine to take the signals. We could not do our work on our territory without a fireman on the engine, without a man on the left-hand side to take the signals.

Q Mr. Chairman, I have, as in previous cases, a number of sketches to illustrate the evidence, and I would file, I think this is Exhibit 230, a sketch of part of the Cranbrook yard.

EXHIBIT No. 230 -- Sketch of
part of
Cranbrook yard.

BY MR. LEWIS:

Q Now, Mr. Brunner, there is a letter A above the Track No. 1, and there are Tracks Nos. 1 to 8 north of the C.P.R. main line; is that the yard in which you would do your work?

A I might say this sketch is not true, altogether true, maybe exactly what it should be, but it does give an idea, approximate.

Q I have explained to the Commission before.

A Yes, that is the yard.

Q This is a sketch which was prepared, as you could remember, and drawn by an artist?

A That is right.

Q Now, what do you have to do, suppose you pull out of Cranbrook?

A Well, there is many a time when we are called on, in Cranbrook, called to double over, to switch and double over our train, and we will be made up on No. 1 track and our cut of cars we will have to double over will be on No. 3 track.

Q Yes?

A We go up the main line with the engine from C, approximately, that is where you come out of the shop track, where C is on the east end; we go up the main line and go up to this place here, where you see the branch-off towards B, back down the engine into No. 3 track, couple on to our cars that we are getting and pull out over to this point again and couple on to No. 1 track with our train.

Q You would pull out and then have to back in again into No. 1, is that right?

A That is right.

Q You would have, when you pull out, you would have to pull clear of the switch?

A On No. 1.

Q Yes, and that would be done just a little west of the crossing marked "Private Crossing"?

A Yes, well, that is the main line. We would leave that main line open when we go down into No. 3 to get the other cars, and when we pull up with the cars we pull up

past B and many times we pull along to the highway crossing up here. We have to give the signals there on the fireman's side to make this move and couple up.

Q Why?

A Well, there is no way of giving signals over on the engineer's side on account of the terrain on that side, sawmills, ditches, trees, and in the winter time snow. It would be impossible to get out on to the side; you would have to go quite a ways to give him a signal, and it would be impossible to work that way.

Q Could you not work by putting one of your men on top of the car to give signals to the engineer?

A I believe we could if the car next to the engine were a box car. We do not always have box cars next to the engine.

Q What cars do you pull?

A We have flat cars, tank cars; we have every kind of car, open cars, a lot of open cars, and in that case he would be useless on the head car. He would not be able to see the engine if it is a car body type locomotive or if he has more than one unit, an engineer would not be able to see him anyway if he were on the first car and if he were back farther it would be entirely impossible.

Q That is doubling over?

A That is doubling over on leaving, which we quite often do, quite often double over when we leave Cranbrook.

Q When you pull into Cranbrook would you be doubling over at the east end in the same way as at the west end of the yard?

A No, we double over at the east end, which we often have to do; Cranbrook is a very small yard. It has not much car capacity for the amount of cars we bring in. They do not always have the long tracks clear so you have to go into a track and double over. It is a left-hand curve on that end as well as the west end of Cranbrook yard and signals there are given on the fireman's side.

Q Are they given on the fireman's side for the same reason you have explained with regard to the west end?

A Yes, with regard to the east end we have, on the engineer's side, a curvature there which would not permit you to give him the signals, besides the obstruction of the station, telegraph offices, armories and various buildings, so you would be out on the highway. Even at that, if you could be seen you would be right on the main thoroughfare of the city.

Q This is the main highway which is shown

south of the tracks here?

A Yes.

Q Pardon?

A That is right, the main highway follows right along there. It is very important in this doubling over there just east of the point marked C, there, just about at C, there is a main highway crossing that goes over to our general hospital, in fact our only hospital, and the doubling over has to be done very quickly to clear that crossing as it is a very important crossing.

Q Did you have any personal experience with that?

A I certainly have. I nearly lost my wife. My wife haemorrhaged and was in the ambulance and was blocked on the crossing and I nearly lost her because of a train being on the crossing.

Q Is this yard a gravity yard or not?

A This is more or less a pocket yard, although from the west end it is quite a bit gravity from the west end. In switching the east end cars run in. It is more or less a pocket yard. If you let a car go on the west end of the yard it will run right out; it is quite steep as they have extended some of the tracks. It is all uphill from there on.

Q Is it or is it not necessary to have one of your men ride some of the cars that you

double over, either at the west end or the east end for the purpose of applying the brakes?

A No, we do not put hand brakes on as a rule in the Cranbrook yard, but it is necessary that one man ride back and make the joint, unless it is a clear track. Usually the yardmaster helps the head end man to double over when we come in from the east end, as it takes us ten minutes or so to walk up.

THE CHAIRMAN: Do you know what a pocket yard is, Mr. Lewis?

BY MR. LEWIS:

Q What is a pocket yard?

A A concave yard, with concave slopes.

Q Slopes at both ends?

A It is high at both ends; it is a saucer yard, probably would be the best explanation for that, sir.

Q You were saying the yardman comes out and assists the head end man in starting to double over while you are still at the west end, at the end of the train?

A That is right; we swing him down and when he is down into the clear, then they make the double and they usually have it made by the time we can get up there from our tail end. The brakeman usually watches it and protects them coming into the straight, watches that they do not push foul if there

are too many cars.

Q Anything else on that, Mr. Brunner, or is that all of interest?

A No, I think that is all, sir.

Q If there are no questions on that sketch, Mr. Chairman, I should like to file as Exhibit 231 a sketch of the yard at Yahk.

EXHIBIT No. 231 -- Sketch of
yard at Yahk.

BY MR. LEWIS:

Q If you will permit me to expedite this, Mr. Chairman, I understand from you that the major problem you have at this yard is when you are going eastbound, is that right?

A Yes, that is our problem there as regards to giving signals. There is a left-hand curve there and 14 cars from the main line switch is a rock cut.

Q Let us indicate it, if you will, so the members of the Commission will see exactly what you are talking about. You are coming eastbound on this one?

A Yes; Yahk is a junction for Spokane and the S.I. comes into Yahk.

Q You come along the C.P.R. main line from the west towards the east?

A That is correct.

Q You come right along until the letter B?

A Yes.

Q And where do you swing?

- A You come down to clear of B, and that is where our work is done, at the east end of the yard.
- Q What I was going to ask you, Mr. Brunner, is do you come along the main line from A to B towards the right of the sketch or do you cross over at A before you start your work?
- A No, we come down the main line from A to B, and we frequently have cars for the south to set off there, and we have cars from the south to lift there to take into Cranbrook.
- Q Yes?
- A We have sometimes quite considerable switching to do there.
- Q Then, at the right-hand there is a road crossing?
- A Yes, just east of the switch.
- Q Is that protected in any way?
- A No, it is not.
- Q Just the signs -- on the sketch here to the east and west of that road crossing they are indicated as being crossboards?
- A That is right, just the crossing signs.
- Q So, you pull your train out over this road crossing?
- A Well, we pull across and we set off over this road crossing, and we throw switch B and switch C and D, and set our cars off into the track.

- Q You back down after you have given the necessary signals, to which we shall come in a moment?
- A That is right.
- Q You back down along the main sort of east lead of that yard after lining switches B, C and D, and set these cars off into Track No. 1, is that right?
- A That is right, and sometimes if we are lifting cars, maybe on the same track we will be pulling cars, we lift ten before we can set these cars off, which makes double the amount of cars. In one instance we had 20 cars there to set off and we lifted 10, so that made 30 cars we had to lift and put out on our engine.
- Q Let me go through that just a little faster with you, and if I am wrong you correct me. If you had 10 cars waiting for you on Track No. 1, which you had to lift, and you had 20 cars to set off at Track No. 1, what you do is, after you have cut off these cars you would then back down and couple on to the ten cars you are to lift?
- A That is right.
- Q Pull up again towards the main line?
- A Yes.
- Q Back down to the train which you had on the main line and couple on with the ten cars and then back down again and set off

the 20; is that the move?

A That is the move.

Q Then you would, two or three times, come up along the main line to the east where the rock cut is marked north of that main line?

A Yes.

Q You said when you started, Mr. Brunner, if you pull 14 cars past B, would it be?

A Past B, yes.

Q You have an engine and 14 cars, and then what happens?

A Then, we have to give signals on the fireman's side there, when we are doing switching. On the right-hand side, giving signals to the engineer, you can only switch with about three cars, three or four cars, and give signals to the engineer on the right side, on account of the curvature there. We work on the fireman's side all the time while we are switching there at the east end.

- Q You would take them on the fireman's side if you had not more than three or four cars?
- A Yes.
- Q Suppose you had as many as 14 cars and you were switching in the move we discussed before with 20 cars?
- A Then one of my brakemen rides out to this rock cut and either he stays on top of the cars, depending if we have 30 cars he would let -- after we go in by this rock cut it is straight track for a considerable distance. He is up on top and he gauges what is left of the 14 cars behind. If there was 30 cars he would be in the middle of this cut so he could see the fireman and see us where we were doing the switching.
- Q If he went on a car closer to the engine, on the second or third car when you had 20 cars or --
- A He would be no use to me because he wouldn't be able to see us that were doing the switching at B and C there.
- Q Then if he is at the rock cut, where are you and where is the rear-end brakeman at that time?
- A He is up -- myself and the rear-end brakeman, one of us is over on the north side of the main line over at B

and the other one is making the joints and watching the cars that we are switching towards D.

Q In the yard?

A In the yard.

Q Could or could not one of your men walk down south on the main line to where the engineer could see him? Could he do that?

A No, it would be impossible.

Q Why is that?

A The only place you could walk out on would be on the main highway, the highway from Kingsgate to Calgary, and it wouldn't be safe to be out on that giving signals. Otherwise if you didn't walk on the highway you would be in the creek, in the Moyle River, as they call it, and sometimes it is quite high, right up to the track.

Q So in your experience you would work on the other side?

A You couldn't possibly work on that side and give signals.

Q What about gravity in this yard, is there any?

A Not very much. It is one of our flattest yards, although the gravity is westbound. After you get in over west for a few cars the gravity is

eastward. Some cars have run off on us there.

Q Is it or is it not necessary to tie cars down?

A It is always necessary to tie cars down no matter what yard you leave them in. You have to tie them down on the west end especially as they would run out on the west end. We always leave one on the east end, or two cars; what we leave in there we tie down, both ends of the yard is tied down when you leave. When we arrive there the cars that are in there are always tied down at both ends.

Q So your rear-end brakeman, would he or would he not be down there tying cars down?

A Yes. When we are through switching, if there is cars in there we examine them if there is brakes on the west end, and then when we are switching it is not necessary to tie the brakes on every car going in there until we are through switching, when we tie the east end.

Q Is there anything else of interest in connection with this sketch?

A No, I don't think so.

MR. LEWIS: If there are no further questions on that, Mr. Chairman, I should like with your permission to file as Exhibit 232 a sketch of the relevant part of the yard at Creston.

EXHIBIT 232 -- Sketch, Creston yard.

BY MR. LEWIS:

- Q Suppose we deal with this going west, at least I will start that way, Mr. Brunner, that is from Cranbrook to Nelson; right?
- A Yes, that is right.
- Q I suppose you would have some switching to do at Creston; do you have switching at Creston?
- A Yes, quite often we have switching there. It is a very busy place.
- Q So that the members of the Commission may orient themselves. Where do you do most of your switching, where do you leave most of your cars?
- A Most of our switching is in the mill spur at D, shown on this sketch here, and at C, the fruit spur.
- Q I suppose the fruit spur would be busy for only part of the year?
- A Well, it is only about two months of the year that it is not -- the fruit

spur is quite busy pretty well the year round. It has cold storage there and they keep fruit for a long time. In this track there is also a pea mill there.

Q That is the track at C?

A That is marked C. There is a pea mill there and we always -- that is quite busy the year round.

Q The fruit building is shown to the left and then there is the pea mill on the same spur, starting left at C?

A That is right.

Q You come with your train along the main highway?

A The main line, not the highway.

Q The main line?

A Right.

THE CHAIRMAN: Going in which direction?

MR. LEWIS: Going from east to west.

THE WITNESS: From east to west, A to B.

BY MR. LEWIS:

Q And then what do you do at B?

A We usually cut off the cars that we have billed to Creston and bring them back through the passing track.

Q Just before you go on. I see there

is a crossing there marked "Main Crossing"?

A Yes.

Q What happens there? Is that protected in any way?

A No, not at all.

Q Just by a crossboard again?

A It is a very busy crossing too, and it is a dangerous crossing in that in the winter time it is down hill and in the winter time it gets quite icy and cars have -- there have been several mishaps there trying to stop while we were on the crossing or approaching and the cars would turn by putting on their brakes and skidding around and go into the ditch. So it is quite a dangerous crossing and the traffic is very heavy, even at 2 or 3 in the morning I have stopped trains there and there have been four or five cars tooting their horns at us.

Q When you have reached B and have cut off the number of cars you are going to switch -- what would that number be, as a rule, or is there any such thing as an average?

A We usually have two or three refrigerator cars for the fruit spur and a car of fertilizer or mill goods for the pea mill,

which they handle also, and we will have four or five lumber cars for the mill spur. About eight or nine cars is not uncommon. Of course there is some times when we only have four or two, whichever happens to be the case, but it is various amounts of cars that go in there.

Q Would the larger number be more frequent than the smaller number, would you have eight or nine cars more frequently than two cars?

A I would say about six would be the average.

Q When you reach B you cut off these six or eight or nine or two cars. Would you be good enough to position for the Commission yourself and the two brakemen at that point?

A Well, the head-end brakeman cuts off these cars and they pull up over the switch at B and back up through the passing track to C.

Q Would you be good enough to stop there for a moment? Where are you and the rear-end brakeman?

A We are walking up from the rear end, which we are just over at this stage here which is marked, up towards A where you see the passing track

branching off the main line.

Q The switch is between A and B?

A That is right.

Q That is where the rear of your train would be?

A That is right.

Q How big would your train be as a rule?

A We usually have 70 cars or more.

Q So if you were going to cut off say six or eight or nine or two cars your rear-end brakeman would have what, about 60 cars to walk up by?

A This siding holds 70 cars between switches; it holds 70 cars.

Q You said siding, but do you mean the main line between switches?

A That is the same for your siding, clear of the switches it would hold 70 cars. So we walk up along the train --

Q Do you mean the passing track or the main line?

A The passing track and siding both hold the same amount at clear.

Q I am becoming a little confused. You said the passing track and the siding?

A I am sorry. We used to call it the passing track in the old way, but now the new way it is the siding so I get confused in saying siding and passing

track. It is one and the same thing.

Q You did not mean that it was between the two switches on the main line that would hold the 70 cars?

A Yes, the main line and the siding hold the same amount of cars between switches in the clear.

Q You leave your train on the main line, do you?

A Yes, we leave our train on the main line and we go back through this siding or passing track, as we have it marked here, back to C.

Q When you say "we" you mean the engine and the cars you have cut off?

A That is right.

Q They back up?

A Back up.

Q Onto the passing track?

A And the head-end brakeman goes high on there because on account of the visibility, he rides the back end and he has to go high. As you notice, there is a footpath on here across and that is a very busy footpath.

Q That is towards the left of the sketch?

A Towards near B. It is a footpath the company has allowed pedestrians to use and it is very dangerous there. You have to go very slow and be very careful

1. 2000

2. 1000

3. 1000

4. 1000

5. 1000

6. 1000

7. 1000

8. 1000

9. 1000

10. 1000

11. 1000

12. 1000

13. 1000

14. 1000

15. 1000

16. 1000

17. 1000

18. 1000

19. 1000

20. 1000

21. 1000

22. 1000

23. 1000

24. 1000

25. 1000

26. 1000

27. 1000

28. 1000

29. 1000

30. 1000

31. 1000

backing up into this, over this foot-path, as people are accustomed to using it all the time.

Q I suppose -- Mr. Chairman, if you will permit me -- one of your men rides the point of the movement?

A That is right.

Q As you are backing up?

A Yes.

Q He rides the last car?

A Yes.

Q To the point --

A The first car backing up. He has to go high there to give the signal to the engineer or the fireman as the gravity -- at first it is the engineer and then later it is the fireman that watches for the signal there.

Q Mr. Brunner, this sketch which is just as accurate or inaccurate as the others does not show any of those curves you have just made with your fingers on the passing track. Is that track in fact more curved than is shown on the sketch?

A It could be. It is mostly when you first back in you give signals on the engineer's side, and then after you get in there for a few car lengths, then you have to give the signals on the fireman's side again, depending on the amount of

cars you have.

Q That is done by the man on top of the cars?

A That is right; the head-end brakeman after throwing the switch will go high on the car and come back slowly and goes over this footpath and then gives him the back-up and watches for any obstructions on the track. We have never had a mishap there, I myself, but there has been some one or so mishaps around there in that yard.

Q While he is backing up with the engine and a few cars, you and your rear-end brakeman then start walking west; where do you stop?

A We stop approximately at C there, and we are going to drop these cars by us to put them in their proper place in these spurs. You will notice these are spurs and you cannot back up cars and come in from the west end, you have to come in from the east end. That is the only way we can put those cars in there, so we bring them back that way.

--

--

THE CHAIRMAN: You had better elucidate that.

MR. LEWIS: May I, with great trepidation, try, Mr. Chairman, and when I say "with great trepidation" I mean it. As the witness has explained, you cannot get into the fruit spur or the mill spur from the west. You have got to do it from the east.

THE CHAIRMAN: That is self-evident.

MR. LEWIS: Pardon?

THE CHAIRMAN: That is self-evident.

MR. LEWIS: And they want to get the cars in there ahead of the engine and then nose on to the cars with the engine. That is their eventual objective. So after they have backed up past the switch at "C" they then go forward. At "C" they separate the engine from the cars, throw the switch and the engine runs down the passing track when they have done that.

Simultaneously with pulling the pin they throw the switch and the cars will go into the fruit spur and the engine will go west along the passing track and the cars will go in on the fruit spur after they have thrown the switch, and that is what they call a drop.

MR. SINCLAIR: Now we are on the ground. I think you had better let Mr. Brunner explain it.

MR. LEWIS: Did I put you on the ground?

MR. SINCLAIR: Yes.

MR. LEWIS: Go ahead, Mr. Brunner.

THE CHAIRMAN: It is sort of a hump operation.

MR. LEWIS: I thought I was doing it, sir, but let Mr. Brunner do it.

THE WITNESS: We drop these cars and get them in front of the engine.

BY HON. MR. MARTINEAU:

Q How do you do that?

A We go by -- at Creston the downgrade is westward and cars run quite easy there. We do not have to give them much of a start, but we go by the switch and we disconnect the air hose from the engine and the cars and bleed the reservoirs of air to release the air brakes, and we are now without brakes, air brakes.

We examine the brakes, the hand brakes on these cars, see that we have hand brakes. We examine the switch to see that the switch is in working order and test it. Then one man stays at the switch and another man gets on the rung of the ladder on the side the pin is on, that is, the operating lever that disconnects the engine from the train, from the cars.

Another man gets up on top of the cars on the hand brake and then we start the movement. I give them the signal at the switch to proceed. The engine starts

forward, giving these cars -- it starts them moving and when I think they are going fast enough I give him the pin sign and he slows the engine up just a trifle and the cars will run in and the man on there pulls the operating lever, pulls the pin and we give him the go-ahead sign and the engine runs away from the cars and he runs away before he gets to the switch and I throw the switch and let them into the diverging track.

BY MR. LEWIS:

Q Does the engine run away west on the passing track?

A Pardon, sir?

Q On this sketch does the engine run away west on the passing track?

A On the passing track.

Q And the cars?

A The cars, we let them into the fruit spur or the back track, whichever has the room, the necessary room.

MR. LEWIS: I am not just sure that I did land my friend on the ground.

MR. SINCLAIR: Ask the witness.

MR. LEWIS: Except for the brakes and what-not, which I did not deal with --

THE CHAIRMAN: Well, the witness is clear.

MR. LEWIS: -- that is the operation, sir.

BY MR. LEWIS:

Q Then you bring --

Q We bring the engine back and that is where we usually get in trouble. We forget -- when we first start we do not always line the switch back and we run through it, but we line the switch back and bring the engine back and nose on to the cars and then we proceed to switch them into the position we want them for spotting purposes, those for the mill and those for the fruit spur and according to the list what we have with us to spot, and when we are doing this work at Creston the signals are given -- after we make this drop the signals are given on the fireman's side.

On the engineer's side there is a mill, the mill spur, there is logs there and and a canning factory and they obstruct the view and it would be impossible to work with any more than about four cars on the engineer's side.

Q What about someone on top of a car?

A Well, on top of the car -- in fact, when we switch there we have a man on top of the car most of the time and he has to alternate between so he can see the fireman and see us on the ground that are doing the switching.

Q What do you mean by "alternate"?

A When he is backing up with these cars he has to come forward towards us to keep us in

view. After he goes by this switch here there is a fairly straight track and he can see the fireman. It is just a few cars past this switch that he has to stay. No matter which way the cars are moving he has to move with them over the top and the cars, they are mostly boxes or reefers we have there and he alternates.

Q Reefers are refrigerator cars?

A Refrigerator cars.

Q Is the same true of the mill spur that starts at "D"? Is the same picture true for that?

A Yes, we have to do our spotting on the left-hand side at the mill spur and fruit spur and in the back track also when we are switching at Creston with the engine headed west.

Q If you are switching in the back track with the engine headed west?

A Yes, in the move I am saying here when we are headed west the signals are all given at Creston on the fireman's side, that is, the majority of them. Various times when you only have a few cars it is possible to give them on the engineer's side.

Q Do you or do you not need yourself and both brakemen in the switching job or could you spare one of you to take signals in the engine cab or on the steps on the fireman's side or somewhere?

A No, he would be no use to me on the engine at all. Then I would have to still place another man on top to repeat the signals there as our train is on the main line and it is obstructing vision there.

Q Obstructing vision where?

A It is obstructing the vision that you can see around the curve.

Q So you need a man on top of the car?

A At all places, yes, under these circumstances.

Q What would happen, then, Mr. Brunner, if I may put one of your men at the engine either in the cab or outside on the steps on the fireman's side and one of your men on top of the car and yourself? What is wrong, if anything is wrong, with that kind of arrangement?

A Well, I wouldn't be able to switch. In terms of switching I would just have to push and shove one car at a time. You couldn't switch that way. In fact, you would be there for hours. We are there long enough as it is. We would be there many times for half a day.

Q Do you have to spot these cars in the mill spur and in the fruit spur very accurately or do you just leave them there?

A Well, the fruit spur has to be spotted accurately. They have doors there that need spotting accurately. The mill spur is not very

accurate. The canning factory is accurate.

Q Excuse me, where is the canning factory?

A In the mill spur.

Q To the east of the sawmill?

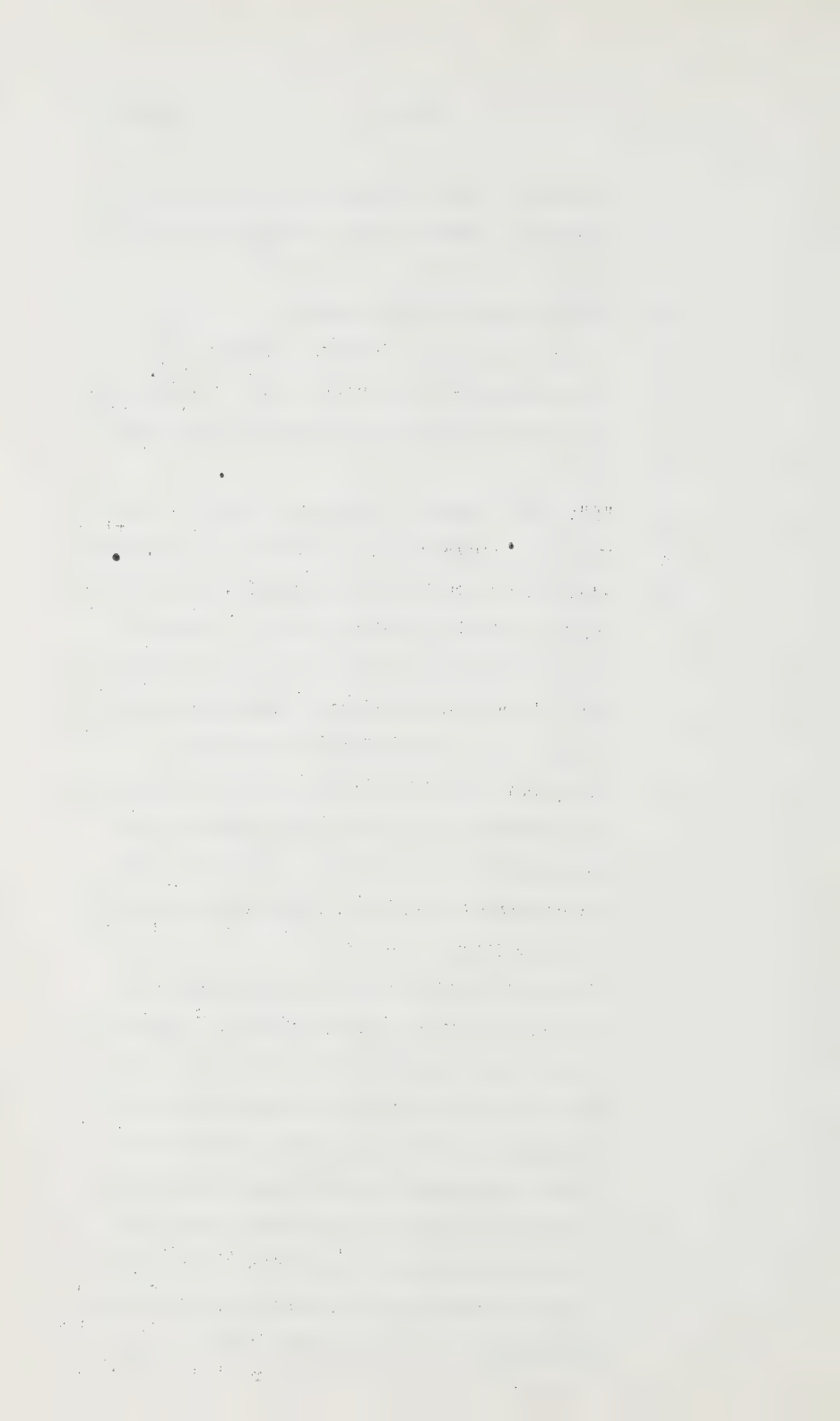
A Just in the clear off the switch at "D".

Q The letters are not very clear, Mr. Chairman.
It is the first building west of the letter
"D"?

A Yes, the cannery. When the cars are spotted
there the cars are just clear so it has to be
spotted at the docks accurately. You have to
spot accurate at these places. The mill
doesn't matter so much. They have a platform
all the way and they have lumber on carts and
they carry it to wherever they need it.

Q Does the fact of having to spot accurately at
the cannery or at the fruit warehouse or
whatever it is create any more difficulty
with regard to one man doing the switching
or does it not?

A Oh no, it wouldn't make no difference as
far as the actual spotting goes. The ones you
spot, while there isn't much to do I would
have to spot the cars and then go up and tie
the brake on them and then go back down and
take up the slack and by that time maybe we
would have shoved a little too far and we
would have to do the operation over again,
but if I have a man on top too he is on the
brake and when we get there I say, "O.K.,



it is fine." He will put the brake right on. He has got it ready to cinch up and he puts the brake on and we move ahead just slowly, just ordinary slack and I am ready to pull the pin and the car will not run away. If I was doing it alone I would have to get up and tie the brake on after the slack is out and then I would have to get the pin, try to get the pin again, that is, the slack to get the pin. They run into the fruit spur westward, quite sharp there.

Q Is there anything else on Exhibit 232 that you want to comment on, Mr. Brunner, or is that all?

A No, I think that covers the Creston yard fairly well.

Q If there are no further questions I will go on to another sketch.

THE CHAIRMAN: We will have a break at this point.

--- Recess.

--- Recess

--- After recess.

WALTER BRUNNER, Recalled

EXAMINED BY MR. LEWIS:

Q The next, Mr. Chairman, is Exhibit 233,
sketch of the yard at Procter. This is on
the same subject, is it not?

A That is correct.

Q Still the Nelson subdivision?

A Nelson subdivision.

EXHIBIT No. 233: Sketch of yard at
Procter.

BY MR. LEWIS:

Q To expedite the questioning, Mr. Brunner,
I understand that your problem here arises
with switching on the barge, which is at the
top lefthand corner of the sketch?

A That is correct.

Q Where there is a trestle and three slip
tracks, and it is marked "E"; is that right?

A Slip tracks are marked "E".

Q Slip tracks 1, 2 and 3, and is not "E" the
barge itself.

A No, the trestle and the barge is attached to
the trestle, you might say. I think that
would be the way the map should read.

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

1911

Q How do you get up to slip "E"?

A Going westbound, coming from Cranbrook to Nelson, we pull up the main line north here; if we have to do it to do the barge pull the barge, we brake our engine, go up from "A" to "B" and cut the engine off at "B".

Q Excuse me, leave the train on the main line?

A On the main line and go back from "B" from the passing track to "C" and go down the slip lead, go to "C" and then go to No.2 and get idlers. We have to hang^{on} to pick up on the nose not less than seven cars, ordinary cars, and 11 or 12 of short cars to pull this barge, as the engine is not allowed on the slip. I think it would be called the trestle here that was taken from the map.

BY THE CHAIRMAN:

Q Where is the barge?

A It would be on the west end of this trestle, fastened on there.

Q The trestle is the thing that the barge goes under?

A No; it is fastened on that. You see, sir, this slip and this trestle. As the water recedes the trestle is pushed out into the water; as the water rises the trestle is pulled in and the barge is fastened to that.

Q Is the trestle a floating wharf ?

A It is a floating wharf fastened there in this trestle; it can't move, of course, and it is

on tracks.

Q That is the barge floats right on the trestle. Is the trestle called a dry dock or a floating dock?

A It is just a barge. It is just an approach to the barge to be fastened on to.

Q Where is the barge fastened on, to the north of the trestle?

A To the west of the trestle.

Q What is the construction of the trestle itself?

A The trestle itself is composed of tracks --

Q It is floating wharf with tracks on it?

A I beg your pardon.

Q It is a floating structure with tracks on it?

A It actually is not floating, sir. If I could explain to you, here is the slip track in this manner, downward into the water, and here is this trestle. It slides on tracks in this manner.

BY MR. LEWIS:

Q It slides on tracks?

A In this manner. (Indicating).

Q You are indicating with one hand over the other?

A Yes. This goes downward into the water and the trestle, I think that is what is meant by the trestle, is on there, and, it matches on these tracks just the same as if you were matching your fingers. It is sharpened so that the tracks will go up this incline on the trestle and on to the barge.

BY THE CHAIRMAN:

Q Perhaps I have been misleading you. I see now that apparently the trestle is the thing that carries these three slip tracks?

A It matches the slip tracks, sir.

Q I thought the trestle was a projection of the wharf; I see it is not?

MR. LEWIS: No; it is the entire thing.

THE CHAIRMAN: Then, the barge is fastened to the end of that trestle underneath the word "Procter"?

MR. LEWIS: Yes, I think that is so.

BY MR. LEWIS:

Q Is that right, Mr. Brunner, if the barge were on the sketch.

A Yes, I would say so, according to this, that would be it; the barge would be fastened on the west end right under "Procter" there to this trestle.

BY THE CHAIRMAN:

Q The barge has tracks on it?

A Yes, the barge has tracks to match those tracks of the slip and the slip tracks and the slip itself.

Q How many cars would the barge hold?

10

A Well, it all depends on the length, sir.
It holds three 52-foot or 54-foot flats,
each track.

Q It holds three what?

A It holds three 52 or 54-foot flats; I
imagine it would be 200 foot trackage for
the length of the barge. We put four box
cars on there on each track. It will hold
four box cars, that is 40-foot box cars.

BY MR. LEWIS:

Q You said you cut your engine off at B
and you bring it along the passing track,
that would be the one that is marked No. 1?

A We bring it down No. 1, that is the passing
track, the engine, and we go into No. 2 or
3 to get these idlers.

BY THE CHAIRMAN:

Q That is a light engine?

A We nose on to them.

BY MR. LEWIS:

Q Then, you back down again past C?

A And out towards A to clear your main line
switch there, come out to the main line,
and then we shove down the slip lead.

BY THE CHAIRMAN:

Q Why do you go out to the main line at A?

A There is not enough room between C and
the main line switch to do the work with-
out opening the main line switch.

Q What is the work?

BY MR. LEWIS: '

Q He is at this point, Mr. Chairman. He has the engine nosed on to 7 or 11 idler cars, depending on the size of the cars; is that right?

A That is correct.

Q Then he backs the engine out pulling these cars out of No. 2 or No. 3 in order to get himself into position to shove these cars up the slip lead --

A It is down the slip, sir.

Q Or down, and he has, perforce, to go partly on to the main line because he has more cars than will go between the main line switch, that would be somewhere over the letter N in Cranbrook and C, and so he has to go that far in order to get all the cars to clear the switch at C; is that right, Mr. Brunner?

A That is right.

Q Then, you shove these cars down the slip lead and start working on Tracks 1, 2 and 3, which you call the slip tracks?

A That is correct. We usually go into No. 3 first, as there are, on the slip track itself, always some cars of coal spotted for the boat that they unload, and we pick them first so we keep them next to the idlers so we won't have to switch

2

10

them afterwards when we complete the work. We can shove the cars of coal down again and we will still have them next the idlers, so we usually go in to pull No. 3 first. The tracks there are very close together and we work on the fireman's side most of the time in coming down on to the slip lead and going down in to the slip tracks.

BY THE CHAIRMAN:

Q Are you taking cars off the barge or putting cars on the barge or both?

A This move I am describing, we are just taking cars off. After we have unloaded it, we load the barge; that is, at times, we have to load it as well.

BY MR. LEWIS:

Q You have to unload the barge?

A We have to unload the barge before we can load it.

Q And you are now in the unloading operation, right?

A That is right.

Q I suppose you nose on to the cars in Track 3, then 2, then 1, and pull the tracks as you come to them?

A No, we go on to No. 3 track, couple up the cars and we have to cut air into all these cars as it is a very dangerous thing if one breaks loose -- it would back down and go into the lake. We have air

in these cars in all operations.

Q That is unusual for switching operations, isn't it?

A Yes, it is unusual for switching, as a rule, but this is just pulling the barge. We pull No. 3 and we take it right out and put it away into the yard. We place these cars after pulling them out.

Q Then, you go back again and do the same thing on another track?

A Yes, then we pull No. 1. This is so the barge will not be overbalanced, and we leave the centre track until the last, that is, No. 2 on these sketches. Then, we pull No. 2 and we proceed to do this and to pull them up, bring them up to the upper yard here.

Q At that point you say you work on the fireman's side some of the time, I think?

A Yes, most of the time.

Q Why?

A Well, on the engineer's side, you notice the curvature there would not permit you to work on his side on account of the curvature.

Q Could you have someone on top of the car?

A Not very likely; we usually have idlers, we have small ore cars for idlers and it is very seldom we have boxes. Most of the business out there is flat cars and ore cars and you could not put a man on top of

these empty cars we are taking down. We use empties for idlers.

Q Again, as I asked you before, do you need all three men of your crew in switching or can you spare one of them to put on the engine on the fireman's side and have the signals given to him by the other two?

A There is nothing impossible, of course, but it would not be practicable to work that way. It would not be efficient. I would be one man short because on this barge the hand brakes will be on so the cars won't slip when the barge rocks. They are well tied down. We have to take the brakes off. Sometimes it takes two or three of us to get one hand brake off, they are put on so tight. It could be done, but I imagine it would take an awful long time to do it and it would not be practicable.

Q Suppose, Mr. Brunner, that you were on a trip where you also had to load the barge. You have now pulled the tracks on the barge, you have lifted the flat cars, as you say most of them are, in Tracks Nos. 2 and 3, as I understand?

A Yes, and incidentally, sir, it all depends, of course, on which tracks the cars we are going to put on the barge are in, so we put them in the other tracks so we won't have to handle them again.

Q Do you bring the cars you are going to load on to the barge with you or are they already there?

A They are generally there.

BY THE CHAIRMAN:

Q That is in the yard at D?

A That is right.

BY MR. LEWIS:

Q Then, you would be working at No. 3?

A Yes. If the cars are fairly close to the west end of the yard D, you will notice the curvature, the signal has to be given again on the fireman's side. In No. 3 you would have to go out some distance to try to work; it would not be efficient or practicable to work on the engineer's side in that case.

Q If you went out on No. 3, suppose you went down south for a distance, would your visibility on No. 3 be clear or would it be obstructed by your train?

A If we are putting our cars off the barge into No. 2 and our cars we are going to load on there are on No. 3, it would not be too bad, but if the cars are in No. 2 we are going to get in between our own train and the cars on No. 3.

Q So you say if these cars which you are going to take to load the barge are at the west end of the yard on No. 2 or 3

H-2

you pass signals through the fireman?

A Yes, we work on the fireman's side all the time because it is efficient, the practicable way of doing it.

Q Suppose you have three or four cars on No. 3, it does not matter, then you would nose on to them with the light engine?

A Yes, and most of the switching is on the front end of the engine.

Q You still have your idlers?

A Yes, we still have idlers.

Q Then, you would back up again past C and shove down the slip lead again?

A That is right, we load just the same as we unload. We load the centre track first, then No. 1 on this sketch and then No. 3.

Q When you load the barge, if you permit me, I suppose you have to spot the cars very carefully?

A Yes, the captain of the ship there will give instructions on how he wants them spotted, which cars he wants first or where he wants them shoved. Then, you have to have the barge balanced so it will handle properly. Then, also, if he has cars for other destinations that he will take off first.

Q On which side of the train do you work when you load the barge?

A The same side; we work on the fireman's

side.

Q Is there anything else on this sketch you want to draw to the Commission's attention?

A No, I think that is all.

Q If there are no questions on that, sir, when you arrive at Nelson, Mr. Brunner -- I have no sketch of Nelson to put before the Commission -- do you have any problems there?

A Yes, we have some problems there at times. We quite often have to double over the head end at Nelson. Our tracks are too short for the trains we handle, and we have to double over there. Then, due to the bad curvature in the Nelson yard, too, signals are given on the fireman's side quite often there, depending on the amount of cars we are doubling over.

Q Does your crew get any assistance from anyone else when you work the Nelson yard?

A Yes, the yardmaster usually directs the head end brakeman where he wants him to double and he assists in doubling over. We very seldom get up to give assistance to the head man; the brakeman and the yardmaster double over and have it done when we arrive there.

Q They have already done it by the time you get there?

A Usually it is done by the time I walk up to the station with the bills.

Q What about working there on top of a car?

A They usually work one man on top of the car at Nelson when they are doubling over, as it would be impossible to work from the ground as a rule, depending on the amount. You see, sir, when we pick up cars along the road, we may have picked up at Yahk 20 cars of phosphate rock, and when we arrive at Nelson we have these next to the engine. We probably only need to double over five or six cars, but the yardmaster, knowing where these cars are on the train, will want these 20 cars doubled over on a train that is already being made up for Tadanac, so we build the train for him at the same time we are doubling over. We will be doubling over 20 cars instead of only four or five, which would be all that would be necessary.

Q If the head end brakeman is on top of the car, could or could not the engineer see him with all these curves you are talking about, these left-hand curves?

A When he has that many cars he would not be near the engine, he would have to be back halfway so he could see the yardmaster who is going to throw the switch, and also see the engine. One time it would be on the engineer's side, the next time on the fireman's side. He works on both sides.

Q Would it or would it not be possible for the movement to stop and wait until you and the rear-end brakeman came up?

A It certainly could be done.
You would have to pull out of the west lead to get the tail-end into clear first and then we could walk up and do the switching. We could make this movement.

Q If you did that would it or would it not still be necessary to give the signals on the fireman's side?

A It still would be necessary to give the signals on the fireman's side.

Q Even if you had all four, that is the yardmaster and three of the train crew, working at the switch?

A Well, we would have to have a man right next to the engine, and as I say with a dump car, which we haul the phosphate rock in, with a car body type engine he wouldn't be able to see the engineer anyhow if he was on the car, and see us.

Q What about the road switcher type?

A The road switcher, if he had more than one it would be the same.

Q If he had more than one what?

A More than one unit.

MR. LEWIS: The next exhibit

I should like to file is Exhibit 23⁴, which is a sketch of the yard at Wardner.

EXHIBIT 23⁴ -- Sketch, Wardner yard.

BY MR. LEWIS:

Q That is on what subdivision?

A That is on the Cranbrook subdivision.

Q Cranbrook to Crowsnest?

A Cranbrook to Crowsnest.

MR. LEWIS: Mr. Chairman, I would draw your attention to the fact that in this sketch south is at the top and north is at the bottom, west is to the right and east is to the left.

THE CHAIRMAN: It is upside down.

MR. LEWIS: This was corrected. When I went over the thing with Mr. Brunner I found him talking about east and west when it was the opposite, so we changed the N to S on the direction signal.

THE CHAIRMAN: That is at the top?

MR. LEWIS: That is right. It was intended to be changed; if it was not, I apologize.

THE CHAIRMAN: The red S is superimposed on the N.

BY MR. LEWIS:

Q Just to illustrate the point you have in mind, you would be travelling --

A From Cranbrook to Crowsnest.

Q Eastward, which is to the left of this sketch?

A That is right. You will notice there is a left-hand curve there, the curvature is on the left-hand side. We often come from Cranbrook with excess tonnage, an excess amount of cars that we have moved from Cranbrook to Wardner to be left there on account of congestion in the Cranbrook yard. We will have anywhere from a small amount to an amount of 25 or 30 cars to set off at Wardner.

Q Just leave them there?

A To reduce the amount of our tonnage. We can haul any amount from Cranbrook to Wardner because it is all down hill, but from Wardner on to Colvalli it is up hill so we cannot take them all any further. Wardner is the last point where we can set them off. So we have a problem of setting off these cars at Wardner. The signals there are given on the fireman's side.

Q Where, at the east end?

A On the east end of the yard.

Q That sharp curve down to Crowsnest, in the direction of Crowsnest?

A That is right.

Q You come eastward along the Canadian Pacific main line, is that right?

- A That is right.
- Q How far do you go before you cut off the cars you are to set off?
- A Usually the engineer pulls down, knowing how many cars we have to set off he pulls down where the fireman will still be able to see the head-end brakeman who has dropped back of the engine to make the cut of these cars.
- Q That would be somewhere around A to make the cut?
- A In the clear of A, somewhere up in there. If he has not too many cars he will proceed to start making this move before we get up there.
- Q When you say "we get up there" you mean yourself and the rear-end brakeman?
- A Yes. If he has very many cars he has to wait until we come up there as when he pulls ahead his view is obstructed by the sawmill as well as the curvature. That is, the main obstruction for visibility on the fireman's side is the sawmill. If he goes by that sawmill we have to have a man up on top to give the fireman the signals.

If he has only a few cars we can work on the fireman's side. He will line up and we reduce into No. 2 Track and No. 3. No. 1 is the siding or

passing track.

Q Is it or is it not possible, if he has few or many cars, to wait until you and the rear-end brakeman come up and one of you go out south of the track to relay signals to the engineer?

A It would be impossible to go south of the track very far or far enough as we are going up into the mountains then. You could not give signals on that side.

Q Would it be --

A The only way possible in setting off the cars would be to take a few cars at a time. If you worked in that manner you could give the signals on the engineer's side.

Q Going east from Cranbrook to Crowsnest do you come first to Fernie or Michel after leaving Wardner?

A Fernie.

MR. LEWIS: As Exhibit 235 I should like to file a sketch of the Fernie yard.

EXHIBIT 235 -- Sketch, Fernie yard.

BY MR. LEWIS:

Q This time it is right side up. You are still going east from Cranbrook, on the way from Cranbrook to Crowsnest; right?

A Yes.

Q What is your work at Fernie, mainly?

A The work we have to do at Fernie consists of setting off mine empties into tracks 5 and 6, marked C there, and lifting loads out of No. 2 track. There are four tracks in the yard marked C.

Q You come along the Canadian Pacific main line, do you, with your train from A toward B?

A That is right.

Q And what happens then?

A Well, we set off our empties. Sometimes we have many and sometimes few. We pull to a stop to clear at B, cut off our empties, proceed over B into that switch, and come down the lead and set our empties off into Track No. 6; 5 or 6.

Q What lead?

A As you notice there, we come down from B and there is a spur there. We come along there up over the switch and into No. 5 or 6.

Q You come along the lead then on the south side of this sketch, is that right?

BY THE CHAIRMAN:

Q Below the letter B?

A Yes, the south part of the sketch.

1871

1872

1873

1874

1875

1876

1877

•

1878

1879

1880

1881

1882

1883

1884

1885

1886

1887

1888

1889

1890

1891

1892

1893

1894

1895

1896

1897

•

BY MR. LEWIS:

Q Below the letter B?

A Follow this curve here.

Q And follow the curve along into No. 6
or No. 5 or whatever it may be?

A Mostly 5, if there is room.

Q That is where you set off your
empties?

A That is where we set off our empties.

Q Do you have any problem in this part
of your move?

A Right alongside the main line, as you
notice there at B, there is a spur
there. That is a spur running parallel
to the main line on the south side of
the main line. That is a lumber yard
and there is also a stock-yard there,
and there are always cars on that spur
being loaded and they can obstruct any
view of the engineer.

Q You are backing in?

A Yes, we are backing these cars we are
setting off into Fernie yard.

Q So that the engineer is south of the
lead and the fireman is north, as it
were?

A Yes. We have to get in position to
work on the fireman's side and stay on
the fireman's side where a man can see
the fireman and see the man who is

lining the switch here.

Q At No. 5?

A At No. 5.

Q Is there any way in which you could position your men so that the signals could be passed on the engineer's side?

A No, I don't think it would be practical to do that.

Q Why?

A On account of the curvature and switches being on that side.

Q On what side?

A On the left-hand side and the curvature is a left-hand curve and the obstruction, until you get past this spur, the stock-yards spur; it would not be practical to give signals on the engineer's side.

Q Then if you have to pull out cars?

A We have considerable switching there sometimes in No. 2 track and No. 4, and we also get cars out of No. 7, loads.

Q Do you switch by backing along the same lead that you came up on?

A Yes. We switch on this lead. We make our moves here and switch on the lead. Then after we have them all switched out we take them out and put them on the train. We then haul slag over from Fernie to Michel for to make brickettes there. Just a short haul.

We marshal them so that they are convenient to set off at Michel, which is also a bad place to work.

MR. LEWIS: If that is clear, I should like to file as Exhibit 236 a sketch of the yard at Michel, which the witness has just mentioned.

EXHIBIT 236 -- Sketch, Michel yard.

BY MR. LEWIS:

Q You are still travelling east, you have passed Fernie and you have got to Michel. Do you usually have much or little switching to do here?

A Yes. Sometimes we have considerable switching to do there. This also consists of setting off empties in the tracks near A. A is the switch at what we call the upper yard consisting of Tracks 1, 2, 2-1/2 and 3.

Q No. 3 would be the top?

A It is the top one, yes. Incidentally I notice we have made a mistake on the drawing here. The lead is slightly different than the one as shown here, but it gives a general idea of the tracks.

Q Which one do you call the lead,
Mr. Brunner?

A The westward lead of these tracks

Nos. 2, 2-1/2 and No. 1. The westward lead of that is not correct.

Q Am I right in saying that it should have been drawn so that it went into each of those tracks?

A No, the lead runs off towards No. 1 from 2-1/2, that is all. That is the difference. Our problem there is a left-hand curvature in getting the pin on the empties and setting off. We are shoving down the empties following Tracks 1, 2, 2-1/2 and 3.

--

--

--

BY HON. MR. MARTINEAU:

Q Pardon me, in what direction is the movement?

A We are moving eastward.

Q From the west to the east.

MR. LEWIS: You are going east, sir,
towards Crowsnest.

BY HON. MR. MARTINEAU:

Q That is from the point marked "B"?

A We are coming from "B", sir, going towards
"A" on this map.

MR. LEWIS: We are going to make a move
in the other direction before we are through.

BY MR. LEWIS:

Q You come from "B" towards "A" and you set
off empties in the tracks 3, 2 $\frac{1}{2}$, 2 and 1?

A That is right.

Q Are there any difficulties in relation to that?

A Well, we all get out there and repeat the
signals. We have one man on top near "A" and
there is another man goes down near the scale
and watches we don't shove past the scale,
that we don't push any car down past the
scale. One man watches there. Another
man watches near where the figures are,
No. 1 and 2, somewhere in there a man goes
high and watches for signals there when we
shove into this yard. The downgrade is
westward, quite severe and it is quite
easy to shove down and get too far.

Q And do you give the signals in these moves

on the engineer's or the fireman's side?

A On both. As you will notice, to begin with, when we are pulled down we give signals on the fireman's side and when we get up farther it is on the engineer's side. When we shove back in as we come around we give the signal again to the fireman.

Q All because of the curvature or obstructions?

A On account of the curvature and the obstruction of other cars that are in the tracks.

Q Suppose you were travelling in the opposite direction and were going west from Crowsnest in the direction of Cranbrook?

A That is from "A" to "B".

Q From "A" towards "B". What is your main job going in that direction?

A Our main job there is usually the lower yard which is marked "C", lifting cars there and doing the necessary switching.

Q You take loads out of "C", is that right?

A Yes, we take loads out of "C" and also quite frequently do the necessary switching for the scaling of the coke that comes out of No. 9 track. That is where they load the coke and that is taken out of there and brought up through a track that we have to clear, either 4, 5, 6 or 7. We have to clear that track and bring it up to the tipple, just below the tipple where it says "scale" and we shove these cars up over the scale and

scale them. We take them back down again and if they go with us we switch out the ones that go with us and take them with us and the others we switch on No. 8 track.

Q Just as a matter of interest, Mr. Brunner, so as to complete the picture, how do the empties that you have placed on your eastward movement in the east yard -- I will call it the east yard -- on tracks 3, 2 $\frac{1}{2}$, 2 and 1, get over into the lower yard or west yard?

A You mean if we are eastbound or westbound, just how the empties get down --

Q You have left a bunch of empties on 3, 2 $\frac{1}{2}$, 2 and 1. Presumably they will get over to the other end for loading purposes?

A Oh, the mine employees take the brakes off of them and they run down into the tipple there where they place them. The mine employees drop them down.

Q They just release the brake and they go down by themselves?

A Yes. That is in the summertime. In the wintertime in bad weather they have to use a bulldozer to pull them, depending on the temperature. Sometimes it is so cold that the wheels will not turn at all and they have to be pulled. The wheels are skidding. The dope freezes on the journals, but ordinarily you take the brake off and away they go and you want to have lots of men on there that

know brakes to hold them.

Q Mr. Brunner, in switching loads and scaling loads and so on in what you call the lower yard "C", what, if any, are your problems there?

A Well, our problem there is that we have to do all our switching on the fireman's side.

Q Why is that?

A On account of the curvature.

Q Yes?

A And every car in that yard has a hand brake on it on account of the grade.

Q Yes?

A Every car that is placed back in there has to have a hand brake on it. The cars we lift all have to be coupled, the air coupled on them, and many times we reach the full length of a track to get one car and have to take the brakes off 25 or 30 cars to get one car, throw that one car out, put the brake on it and shove the others back into this track as it is a revenue load and has to go.

Q And your engine in this work is headed in what direction?

A Is headed westwards towards "B", towards Cranbrook.

Q And when you pull the cars they are attached to the cab of the engine? Is that right?

A Pardon?

A The cars are attached to the cab of the engine,

to the rear of the engine?

A To the rear of the engine.

Q To the rear of the engine?

A That is right.

Q I said "cab". I was thinking of a yard engine.

They are attached to the rear of the engine.

Is there any way you can position your men so as to pass signals on the engineer's side, Mr. Brunner?

A No sir, there is no way that you can position the men to give signals on the engineer's side.

Q And I will ask you the same question I have asked you already on two or three occasions. Is it or is it not possible for one of your brakemen to be on the fireman's side of the engine, either inside the cab or on the steps or somewhere, to receive your signals, or do you need all three of you to do the work?

A I certainly need both brakemen to do this work at all places and especially Michel of all places we certainly need both brakemen because, as I have mentioned, the cars have brakes on them and all have to be -- any cars left have to be tied down again.

Q If there are no more questions on that, Mr. Chairman, I want to go to your Lake Windermere subdivision, Mr. Brunner, and as Exhibit 237 I will file, if I may, a sketch of Golden.

EXHIBIT NO. 237 -- Sketch of yard at
Golden.

BY MR. LEWIS:

Q Assume, Mr. Brunner, that we are travelling eastbound. What would be our starting point and what would be our destination?

A Mr. Lewis, that is our terminal and we are southbound when we start there and we are making up a train in Golden.

Q Yes?

A The tracks around the main line in "A" from that crossing on the east end westward, they will hold approximately 50, 48 or 50 cars depending on the length, and we take out of there with a small engine, a 7100, we will take out of there 89 or 90 cars.

Q Yes, and therefore you have to double your train?

A Many a time, yes.

Q Yes?

A So we have a problem of building a train on these tracks and building another one the same length on another track. We have to marshal our cars for Lake Windermere which we sometimes have merchandise for there, the odd car for there and some open cars. Depending on what is going, we marshal them for there, marshal cars for Canal Flats and various points along the road.

We also may have at Colvalli a set off

of mine empties. We sometimes haul mine empties down there and the others are Tadanac cars to go west and these mine empties go there. So we do our switching there and marshal them in accordance with the work.

Q Is there a yard engine working in Golden?

A No, there is no yard engine.

Q So that you are --

A We are making up our own train.

Q Yes?

A Our problem there is that after we get all the switching done we are also dodging main line trains which we are asked to clear, freight trains that are not superior to us but we are asked by the despatcher to let that fellow go, he didn't want him held up.

Q Yes?

A I imagine he has a meet out somewhere or an order that he is trying to get him somewhere, so we plan our work accordingly by making up in the passing track.

Q That is this southernmost track?

A On the south pass and we make up the rest of it in No. 1 or No. 2.

Q Yes?

A And when we are ready to move our engines go back and take on some more diesel fuel as it is a long hike to go over, 195 actual miles running, so the engine goes back to fuel up once more with diesel fuel for the journey

homeward.

Q That is after you have finished switching?

A After we are done switching.

Q Yes?

A Then we couple on to our cars in No. 1 or No. 2. Our tail end is set in the south passing track and we pull away up on this track here, the passing track, where you see the spurs going off and the shops, where it says "Shops" there. We pull away out on those tracks.

Q On which track, the north passing track?

A On the north passing track.

Q Going east, in an eastward direction?

A In an eastward direction, and we pull them cars out and back them up the main line and then forward on the main line to our main line which is past the station where you will notice there is a switch there and we branch off to the south.

Q That is where there is a main line that turns to the southeast and the words "To Cranbrook" are under it?

A That is correct.

Q That is what you call your main line?

A Yes. We have to place a man on top of the cars there a considerable distance from the engine, another man on top near the tail end and another one of us throws the switch and makes the coupling on the train in the pass.

W. Brunner

We have to make this movement twice, as you understand, as we pull up and back up and go ahead again on our main and back up again on our pass.

Q In order to get the rest of the train --

A That is correct.

Q Then pull up again on your main?

A Yes, we go out on our main again and couple up to get the car and away we go.

Q What are your problems in any one or all of these --

A We have a lot of cars to handle; it takes all of us to repeat signals scattered along the train, not as has been inferred, with a man standing behind the engine on the first car to give it to the engineer. He would be out of sight and he would be as useless to me as the engineer is in that position to get signals; so that we have to have a man to take the signal on the lefthand side so we can operate properly.

Q That curve on your main line, Mr. Brunner, which is marked "to Cranbrook" appears to be a righthand curve.

A Yes, that is a righthand curve, sir.

Q And the engineer would be inside that curve, would he not?

A There is too many curves there. As you notice, he is not in sight. The man has to place himself about 20 cars behind the

1892

Jan 1st

Feb 1st

Mar 1st

Apr 1st

May 1st

Jun 1st

Jul 1st

Aug 1st

Sep 1st

Oct 1st

Nov 1st

Dec 1st

Jan 1st

Feb 1st

Mar 1st

Apr 1st

May 1st

Jun 1st

Jul 1st

Aug 1st

Sep 1st

Oct 1st

Nov 1st

Dec 1st

W.Brunner

engine to give signals so we can get into this passing track, into the south pass. It is all curves.

Q Do you work on the fireman's side all the time or on the engineer's side?

A No, we work on both sides, mostly on the engineer's side while doing the switching, to make the last of the moves, as I say, to pull these cars, this long cut of cars we have to work on the fireman's side.

Q I notice, Mr. Brunner, there is a highway going north and south just a little east of the yard which we have labelled "A"?

A Yes, that is the main highway; I think it is called the Big Bend highway, goes around the Big Bend.

Q Is that protected?

A No, it is not.

Q Just by the cross bars?

A That is right.

Q Have you any duties in connection with that crossing?

A Well, during the summer months when the highway is in operation one of us has to stay on this crossing nearly all the time to watch the cars so that they will not try to dash. The view is hidden by the station. This highway is actually closer to the station than it shows here. The view is hidden, and some people come dashing by, think we have stopped

thinking the movement had stopped, and they try to dash across. I have usually stayed there myself or left the brakeman there to watch this crossing during the summer months when we are up there.

Q Is there anything else you wanted to bring to the attention of the Commission?

A No, I think that is all sir.

THE CHAIRMAN: We will adjourn now until two o'clock.

-- The Commission adjourned at 12.32 until 2.00 p.m.

Monday,
June 3, 1957

AFTERNOON SESSION

-- The Commission resumed at 2.00 p.m.

WALTER BRUNNER, Recalled

EXAMINED BY MR. LEWIS:

Q We have, Mr. Brunner, discussed in some detail some of the points on three of the subdivisions you mentioned, Nelson, Cranbrook and Windermere subdivisions. We have not mentioned the fourth one, the Kimberley, subdivision, I think you told us from Cranbrook to Kimberley; is that right?

A That is right.

Q How many miles is that subdivision?

A 18 miles.

Q You go one way and come back?

A And come back.

Q Are there any spots or places there that you would like to comment on to the Commission?

A Well, yes; Kimberley is one of our toughest places to work; it is a very steep grade; the visibility is poor on account of obstructions of mountains and timber and valleys, on either side. If there is a mountain on one side there is a valley on the other. In switching there we will have to have cars many times behind us and in front of us.

Q At the same time?

A Yes; well we have cars to place, we have to have them on the back of the engine and we have to have the cars in front of the engine to place them in certain spurs on tracks that are required there. It is necessary to give signals on both sides, both to the engineer and fireman. They have both got to be alert at all times to get signals on account of curvature.

Q What are some of the places that you work at in Kimberley?

A We start out by doubling from Wycliffe to Kimberley, half the distance from Cranbrook, that is nine miles, double up to Chipman/^{camp,} take cars out to the concentrator, empty cars up to the concentrator to be loaded. We have empty cars for the fertilizer plant which is south of Chipman camp. We have empty cars for the fertilizer plant which is south of Chipman camp. It is all in Kimberley. Chipman camp is also part of Kimberley yards; it is all under one yard and we have cars for loading there, empty cars for the fertilizer plant. We also have to take loads in there sacks and cement and one thing and another for the fertilizer plant and coal to put into the concentrator.

Q You said you have to work or give signals -- I forget which phrase you used -- on both

W. Brunner

sides of the engine all the time.

A Yes, the curvature is such, it is just like a snake. The track keeps curving; all the tracks have got so many curves in them you could not work on one side all the time. The different spurs and the different tracks, they are all curves that you have to work on both sides.

Q We have filed, Mr. Brunner, a number of sketches covering a number of the points on the three other subdivisions, and you have now mentioned Kimberley. Without going into any detail, do these exhaust all the points where you think there is some difficulty, or are there other points as well?

A I would say anywhere we have any work to do we have the same trouble. If we have a hot box en route on any of the other sidings --- nearly all of them have curvatures that require signals/^{to}be given on -- if we set off going west probably give it to the engineer; coming east we would give it to the fireman, wherever the curvature is. There is none of our tracks that are straight; so 50 per cent of the time we have got to give signals on the lefthand side.

Q Have you had any experience with breaking in two of the train, a draw bar being pulled or a knuckle being pulled?

A Yes, I have had quite a bit of that experience. It is a common occurrence. When I say "common" we expect^{it is} quite regular in the course of our

W. Brunner

work that I think we have quite a few times draw bars, or we have a doubling on account of the inability of the engine to pull the train through slippage or the diesel not functioning proper, or some other thing that causes us to work double, and we have the same trouble there. The break is always on a curve, and to repeat the signal to make the double or to set off a hot box, why it requires the signals to be given on both sides most of the time. I would say 50 per cent of the time we work on either side.

Q Now, as a point of interest, Mr. Brunner, do any of the yards you mentioned, or any others have any yard engines working in them?

A Only Nelson and Cranbrook have a yard engine working. All these other places we do our own switching; the road crews do the switching. When I say "road crews" that includes the way freights. Sometimes they have way freight. The way freight only runs every other day, so that on the off day they are going in the opposite direction. That east end crew, or west end, whichever direction the way freight is going, they do the work if it is necessary.

Q Now, Mr. Brunner, on the freight trains on which you are working, the freight trains which are not way freights, do you regularly have switching to do en route, or is that an exceptional matter?

W.Brunner

A No, it is quite regular, nearly every train except No.980, and that is the only train, and on the east from Cranbrook to Crowsnest, and that is about the only train we do not do any switching on en route.

Q You mentioned in a number of places in your evidence earlier, Mr. Brunner, something about placing men on top of cars to relay signals. Do you consider, from your experience that that is or is not a safe practice in the winter?

A I consider it an unsafe practice at any time and especially in the winter time. We have cars that come into Nelson, for instance that will have two, three and sometimes as much as four feet of snow on them, and then it rains in Nelson, and when we depart there we go over Goatfell Hill where it turns cold and the snow freezes solid, and you are unable when climbing up to even get a hand hold on your grab iron. You can't take the snow away with your mitts to get a hold of the grab iron to get up on the car. You have to knock the snow away before, and the grab iron is full of ice and the rungs are full of ice; you have to knock a lot of snow away before you can get up on top of a car.

That is in snow conditions, and in the early fall it rains in Nelson and on leaving Nelson often it will freeze on top of the car and it will often be as slick as any skating rink, making it very dangerous when the slack runs in or out and your footing is shaken when you are on top of the box car.

Q Nonetheless, you did inform the Commission earlier you had to have men on top of cars for relaying signals?

A Yes, we do have to, and we do it. I do not say it is safe, but we have to do it to do our work. It is not always safe, but we have to do it to do our work many times; we have to get up to relay our signals.

Q In the conditions that you have described, Mr. Brunner, when you go up on top of a car, do you, in such conditions, choose the car you go up on from the point of view of safety, or what do you do?

A If you cannot get up on one you try to look for another one. Certainly we do not try to get up on one we think we are going to slip off of or which is full of snow, if there is one next to it that has been in another part of the yard and has not got full of snow, why naturally we would go on that one.

Q Then, in some of the yards which you have

described to the Commission, Mr. Brunner, you will remember there were highway crossing and foot crossings that you drew to the attention of the Commission. Would you please tell the Commission who, in your experience, is responsible for the lookout with regard to these crossings as you head in or back up?

A Well, in backing up, our brakeman or myself is riding the point and will watch for these crossings, and going ahead the fireman and engineer will watch for people and obstructions on the track. If a car gets stalled, like at Creston, with that foot path, it is very busy. When we are switching we are behind the movement and when we are pulling out they are both watching forward to see if there is anyone on the track. Sometimes you will see a man there or an old lady who is trying to get across, and they cannot move fast and you have to slow up and let them by.

Q Suppose you are working on the fireman's side, Mr. Brunner, in these moves you have just described at Creston, especially?

A At Creston; we also have a private crossing at Michel that is very busy. There are trucks going over there that haul coal from the strip mine that operates through there about every five minutes; a truck is going over hauling coal and going back empty,

hauling coal from the strip mine to the tipple and going back empty to get another load. At Michel the offices and washrooms are on the other side of the highway and they cross over continuously, backward and forward, over to the tipple, to their stores, washrooms, and it is a very busy place for traffic, pedestrians and trucks; that is a private crossing. The men that cross over do not use the private crossing, they just walk across the track.

Q If the fireman is receiving signals, if you work on the fireman's side, who looks in the direction of the movement?

A Going westbound the engineer usually looks back to see -- this is a registering point for our trains going westbound, and eastbound also, for that matter -- if we have to register the engineer looks back and he is looking for a signal to see if the caboose is anywhere near the station. He tries to stop as close as he can, and the fireman watches forward to see if there is a frog on the track. These trucks, incidentally, do not go too fast over these crossings. They have a heavy load and they go very slow. There is a sharp curve right on to it and they sometimes go on there without looking. I do not doubt but that the fireman has saved many mishaps by being alert.

- Q Since you are a conductor now and were a brakeman for many years you were on the head end of the train when you were a brakeman?
- A Yes, I was on the head end more than I have ever been on the tail end of the train.
- Q How many years would that be, roughly?
- A I would say 15 years, anyway.
- Q That you were on the head end of a train?
- A That is right.
- Q That would be in the days of hand-fired engines?
- A Yes, I have never been in the head end of a diesel, never as head end brakeman or as a brakeman.
- Q From your recollection of your experience as a head end brakeman on hand-fired engines, Mr. Brunner, could you inform the Commission what you observed the fireman doing in regard to lookout, if anything?
- A Well, I observed the fireman on the lookout all the time, every opportunity. He puts in a fire and he gets right out; he is out gasping for air, and he naturally looks ahead to see what is in front. He would go down, put in another fire, use the poker, and come back out and naturally he would stick his head out gasping for air again. He would look again; he was continuously on the lookout between fires; that is his job.

Q Did he return to his seat every time he did this?

A Sometimes he would not get on the seat. He would just lean on it, like this. It was not worthwhile getting up. The seat is built on a little platform and if he were long enough he would not get up on that, he would just lean on it and stick his head out. If he was a short fellow, like me, he would have to get up and stick his head out.

Q Stick his head out the window?

A Yes, and if he were too busy he would stand on the gangway and look out and if it were a curtain type, he would stand in the vestibule and look out there. He was always looking out when he had an opportunity; that was standard.

Q From your head end brakeman days and since, would you please give the Commission your experience and the instructions with regard to inspection of the train?

A Well, as a head end brakeman you inspect the train at every opportunity. If we head in for another train, into a siding, while we are waiting there it is customary -- in fact it is necessary and it is part of the rules -- that we drop back and look our train over. It was customary for me -- I have done that and I have taught all the brakemen to do the same -- we would drop

back and look over half the train at least --

Q You would do this when the train is standing or moving past?

A Only when we would be heading into a siding. I would go about halfway on the siding unless the man we were to meet was there. If there was no sign of him, I would drop off and let half the train go by me, and then look over the other half. The head end brakeman would look over the other half, unless it was a standing inspection.

Q And would you be standing on the ground when you did this?

A Yes, we still do that where possible unless the man is there we are going to meet or he is afraid we might not get into the clear and he might have to flag. If he knows we have room, he drops off and checks the train.

Q When you say "he"?

A The head end brakeman will do that.

Q Do the train crew of your train have any duty under the rules with regard to passing trains, inspecting them?

A Yes, we have to inspect the other man's train at every opportunity when we are waiting on a siding or on the main line, the head end brakeman will watch this man's train we are meeting, watch it pull by and look for any defects.

M-2

Q Are you always on the ground when you do that?

A The head end brakeman -- if we are standing, naturally the head end brakeman is on the ground. The tail end crew is not because they might start to pull out and we may not see only part of it on the ground. We look from the rear of the caboose and we watch the train pulling by.

Q Now, Mr. Brunner, from your experience as a brakeman and as a conductor, can you tell the Commission whether, in your experience, it would or would not be possible to do your work as a conductor without someone on the left-hand side of the train?

A No, I would say that, in my experience, in the territory I have worked, I have to have someone on that engine on the left side to take signals and also to look forward when we switch, because there are many times when you are heading through on a siding, especially with the switcher type units we have now, the 8900 class Trainmaster units, the curvature would be such that the engineer could not possibly see if there was a push car loaded with ties on your track or a rail on the siding and the sectionman would not be aware of his taking the siding there because they have no information until we get there. He would

not be able to see whether there was anything on the track, the engineer would not, if there was no one on the left side to watch on some of the curves we have.

MR. SINCLAIR: With the Commission's concurrence, I think I would ask Mr. Brunner to step down until I have a chance to look at my notes.

THE CHAIRMAN: You will have to come back later.

THE WITNESS: Yes -- will I just sit down over there?

THE CHAIRMAN: Yes.

VIRGIL THOMAS CONNOR, Sworn, Examined

BY MR. LEWIS:

Q You informed me that you are a conductor in pool freight service on the Crowsnest and Aldersyde Subdivisions?

A Yes.

Q And resident where?

A Lethbridge, Alberta.

Q And the Crowsnest Subdivision is from what point to what point?

A Lethbridge to Crowsnest, 101 miles.

Q And the Aldersyde Subdivision?

A Covers part of Crowsnest to Aldersyde sub and the MacLeod sub.

Q And goes from Aldersyde to --

A To Calgary.

Q To the Alyth yard?

A Six miles to Coalhurst, 87 miles on the Crowsnest; 87 miles on the Aldersyde sub to Aldersyde, and 32 miles from Aldersyde to Calgary.

THE CHAIRMAN: I am lagging a bit here. Where is Aldersyde?

BY MR. LEWIS:

Q Where is Aldersyde?

A It is north from Lethbridge on the way to Calgary.

THE CHAIRMAN: Yes, it is on Exhibit 8-A, I see. The Crowsnest Subdivision,

you say, is from Crowsnest to where?

MR. LEWIS: Lethbridge.

THE CHAIRMAN: And Aldersyde is from Lethbridge to Aldersyde, is that it?

THE WITNESS: Yes.

MR. LEWIS: I have called it the Aldersyde sub, I do not know whether that is right or not, but you actually go six miles on the Crowsnest sub to Coalhurst?

THE WITNESS: To Coalhurst, that is right.

BY MR. LEWIS:

Q And from there, where?

A From Coalhurst up to Aldersyde is 87 miles.

Q Then, from Coalhurst north up to Aldersyde, and then from Aldersyde --

A Aldersyde into Alyth is 32 miles.

MR. SINCLAIR: Looking at Exhibit 8A, I think the map you are looking at shows the line over the Aldersyde Sub-division from Macleod to Aldersyde, that is not shown; it is only partly shown on the map. It swings off the map down into Lethbridge through Coalhurst.

THE CHAIRMAN: The Crowsnest Sub-division is from Crowsnest over to Lethbridge and the Aldersyde is from Lethbridge up this route marked 22?

MR. SINCLAIR: No, sir, that is what I thought. That is the Macleod Sub-division; Aldersyde is out there where Aldersyde itself is shown.

THE CHAIRMAN: Yes.

MR. SINCLAIR: There is a curving track coming to the southeast from there and continuing over the map to Lethbridge. That is the Aldersyde Subdivision.

THE CHAIRMAN: That is the one I am thinking of, it has the figure "23" in the centre?

MR. SINCLAIR: It is not on my map.

MR. LEWIS: That is the one, but it actually does not go down all the way to Lethbridge. It goes to Alyth-Calgary. The subdivision the witness is dealing with does not go over that route to Lethbridge, it goes to Alyth-Calgary.

THE WITNESS: That is right.

THE CHAIRMAN: It goes to Calgary?

MR. LEWIS: It would not be on that line.

THE WITNESS: If you are going to Calgary from Lethbridge you go six miles over the Crowsnest Subdivision out, and then you branch out on the Aldersyde Subdivision; then you go 87 miles on the Aldersyde Subdivision; then you go over on the Macleod Subdivision, a distance of 32 miles into Alyth. It is all north.

MR. LEWIS: All north from Aldersyde rather than twisting down south. That is marked 23.

THE CHAIRMAN: I am not following this.

MR. SINCLAIR: The way the Chairman outlined it was right.

MR. LEWIS: I did not quite understand it then. Straight from Crowsnest you go east to Coalhurst then up the line that is marked 23 to Aldersyde and then up north to Calgary.

THE WITNESS: Yes, that is quite right.

THE CHAIRMAN: We are talking about two separate subdivisions.

THE WITNESS: We are not going over the Crowsnest Subdivision from Crowsnest;

we are going from Lethbridge for six miles.

THE CHAIRMAN: Witness, just a minute. The Crowsnest Subdivision is from Crowsnest easterly to Lethbridge?

THE WITNESS: That is correct.

BY THE CHAIRMAN:

Q That is straightaway. Then the Aldersyde Subdivision is from Lethbridge back on that same line to Coalhurst?

A That is correct.

Q Then north on this curving track to Aldersyde, or to that place in between, Eltha?

A Eltha, that is the junction.

Q And then from Aldersyde up to Alyth, Calgary?

A That is right.

Q You call that the Aldersyde Subdivision?

A All the way from Coalhurst to Aldersyde is the Aldersyde sub.

Q From Coalhurst to Calgary?

A To Aldersyde is the Aldersyde sub; then you branch off from Aldersyde onto the Macleod, and it is the Macleod Subdivision for 32 miles.

BY MR. LEWIS:

Q You told me you started with the Canadian Pacific Railway as a trainman in 1920; is that right?

- A Yes, 37 years ago this fall.
- Q And you were classed as a conductor on August 30, 1926?
- A That is the date I have on the seniority list.
- Q And you were set up as a regular conductor in 1939 or 1940?
- A Yes, that is right.
- Q You do not know the exact date?
- A I do not know the exact date.
- Q And between 1926 and 1939 or 1940 you worked as a brakeman most of the time but also as a relief conductor; is that right?
- A That is correct.
- Q Since 1939 or 1940 you have been working mainly as a conductor?
- A Yes, I have been working since, well previous, before the war, when we started the last war; I have been running ever since as a conductor.
- Q Then perhaps we were not correct in what I said, that you had been set up as a conductor; it should be in 1939, that would be more correct?
- A That would be about right.
- Q And has your experience been mostly with freight or mostly with passenger?
- A Oh, on freight.
- Q You have had some experience on

passenger work?

A Yes. I used to get a lot more than I am getting now. I made a trip on the 12th of March and I never got a trip until the latter part of April.

Q You mean in passenger service?

A Yes, in passenger service.

Q The rest of the time you were in freight service?

A In pool freight service.

Q How many years since you have been working on trains drawn by diesel power?

A Ever since they come there.

Q Which would be roughly when?

A Over three or four years; three years, I guess it was when they brought them out there.

Q Have you had much experience with what have been called Dayliners?

A Oh, yes, I run Dayliners practically all the month of July at the Stampede last year, Lethbridge to Calgary and also up the Macleod sub. No. 537 goes from Aldersyde and 538 comes down that way. 541 goes around through Macleod up to Calgary and 542 comes down from Fort Macleod, to Lethbridge by Macleod.

Q You were working those Dayliners?

A I was on them all last July.

Q Have you been on the R.D.C. trains

running between Medicine Hat and Lethbridge?

A Yes, I have.

Q To any extent?

A No, I just made a few trips on them.

Q I understand you are a member of the
Brotherhood of Railroad Trainmen?

A Yes, sir.

Q And you have told me that you have never
held office in your local lodge?

A No.

Q Now, about your record with the Canadian
Pacific; first, with regard to demerit
marks?

A I have 15 at the present time and 83 good
ones, merit marks; 83 merits and
15 demerits.

Q You have 15 demerits against you at the
present time?

A Yes.

Q Would that mean you have received them
within the last 12 months; is that right?

A I got them just before I come down here.

Q You got them when?

A 2nd of May, I think.

Q You got them in recent months?

A Yes, last month.

Q You say you have 83 merit marks to your
credit?

A Yes.

Q Would you describe your experience, what

you as conductor and your two brakemen in freight service do?

A Yes. We arrive at the yard on call for a certain hour, say 3.30 in the morning. We arrive over there at 3.15. The head-end man goes and gets his engine and our tail-end man will go back and pick up his lamps and check his flagging kit. I have to go upstairs in Lethbridge to get the orders and sign the bulletin book, compare my watch and get my orders and walk over to where the train is made up.

If I have short hauls I will give the head-end man a list of what there is to set out.

Q What are short hauls?

A Cars for Monarch, Pearce or Coalhurst.

Q Short distances, is that what you mean?

A Yes, or what I might have to set off at Macleod. I might have 15 cars to set off at Macleod or I might have two for Macleod, three or four for Pearce, or whatever it might be. I give them to him on a piece of paper and he cuts those cars off at those places, goes with them where we can spot them, wherever they are required to spot them, and comes back on our train. We make an air test of the air-brakes and then we proceed.

- Q What are your duties and the duties of your crew with regard to inspections of the train?
- A It is our duty to make running inspections on every curve and at every opportune time on both sides. That is the trainman's duty.
- Q And what do you expect from the head-end trainman?
- A That is his duty; that is the one I am talking about.
- Q Do you expect him to inspect on the engineer's side as well as on the fireman's side of the train?
- A Yes, sir, that is his duty.
- Q What about standing inspections, do you have any duty with regard to that?
- A Oh, yes, we have our standing inspection at a distance of not over 35 miles.
- Q I am sorry, I cannot hear you.
- A A distance of not over 35 miles for the first inspection, and on No. 980 they are allowed to run a distance of 50 to 75 miles, but we don't get that very often. There is 11 crews working on this west end and of course you get it once in a while, but that is not an every-day occurrence.
- Q Mr. Connor, do you recall an occurrence which you told me about that occurred on

a train with yourself as conductor and Andy Stewart as engineer?

A Yes. We had three units that morning and 3900 and some odd tons. I cannot be exact on that, but it was very close to it. However, we got up to Pincher --

MR. SINCLAIR: I simply cannot hear the witness.

BY MR. LEWIS:

Q Would you mind starting this over again?

A Well, we went out of Macleod with 3900 tons approximately, or a little over.

Q How many units?

A Three units.

Q How long ago was that, do you recall?

A It is a year ago last fall. I told the boys to go to Cowley for inspection on account of Cowley will hold 100 cars. If you get in between switches we do not have to flag. They got to Pincher and they pulled the tail end over the crossing at the station. Then they stopped and I walked up and asked what the trouble was and they said they had had to kill the third unit, that No. 7 cylinder had blown its water-jacket. I had far too many cars for two units but I didn't like to reduce. We had a revenue train and I asked them if they could use it. I asked how much

water have you got in it and they said well we can hold a little water, but it won't do it too long or too far.

I said there was only three places that the train couldn't handle with two units, and that will be one going into Burmis, one going into Frank and one going into Sentinel.

The fireman was Barney Carrier, and he went back into the third unit. We went out of Pincher Creek and made our inspection there and we went over to Burmis and got down to about 10 miles an hour and finally we took the train up and went from Burmis. He worked it for about five minutes and then cut it out.

Q I believe you have skipped one step there. You got to the bottom of Burmis Hill?

A We didn't do anything, only kept going, but when we started up the hill the fireman went back and cut in the third unit, the one they had killed at Pincher, and took the train up into Burmis quite easily with three units.

--

--

Q Yes?

A And he cut it out again.

Q Went back to the third unit?

A Went back to the third unit and cut her out.

Q Did he stay there or do you know?

A No, he didn't stay there. He couldn't stay there. Unless he went back up to the head end -- oh, I beg your pardon --

Q Did he stay in the third unit?

A Well, I don't know whether he did or not.

Q Pardon?

A I couldn't say whether he did or not.

Q You don't know whether he did or not?

A No, I don't know.

Q But you say when you reached the top of the grade at Burmis --

A He cut her out.

Q He cut the third engine out again?

A Yes, and we left Burmis and we got to Frank. We hit the Frank slide and there is about a mile there of dead pull, an awful grade, so he cut in the third unit again and took us up the hill over Frank and he cut it out again.

Q Yes?

A And we went from Frank, we went to Sentinel and going up into Sentinel around the curve at the mile board he cut her in again and took us up into Sentinel.

Q Yes?

A We got to the top of Sentinel Hill and you

might say it was a downgrade but it is a water grade there, from there into Crowsnest. Therefore we took our full train, revenue, Tadanac empties, all in.

Q Right in to Crowsnest?

A Yes.

Q With no difficulty?

A Yes.

Q Having got to Sentinel you say after that there is a level grade or what you call a water grade?

A Yes, it goes level right around the lake.

Q And you could pull the train with the two good units?

A Oh yes, the two units handled it any place else.

Q And the third unit remained dead until you got to Crowsnest?

A The third unit was never cut in again.

Q Do you recall an incident that you told me happened very recently on a trip from Lethbridge to Crowsnest?

A Yes, we had a meet at Lundbreck.

Q How long ago was that?

A The early part of April.

Q Yes, and what train were you on?

A An extra west.

Q Yes, and do these things have numbers or not?

A No, just an extra train, engine 8918.

Q That would be a Trainmaster, would it?

A Yes.

Q You say you had a meet at Lundbreck?

A Yes.

Q Yes?

A And we got ten poles from the switch and we quit right there. The air set up and we stopped and we were outside the yard limit there and we had to send a flag out the full distance, flag to the rear. I walked up and asked what the trouble was and they said they just wasn't sure. They cut the engine in and it ran a few seconds and a bell started to ring and they cut her out. They couldn't pull the train, couldn't get the pump going. So this meet come and I went up and got them boys to back their train clear over the west switch and come down, hook their engine onto the head of our train and pull the whole thing into the siding.

Q At Lundbreck?

A At Lundbreck.

Q Yes?

A And they cut off about 15 and shoved them over into the back track, including the engines, because we had too many cars for the siding.

Q So in effect they doubled you over onto another track?

A That is right.

Q Yes?

A So they backed on to their train and left.

Q That is the train which met you?

A Yes, 72.

Q No. 72?

A I think it was 72 we met there.

Q Your train, this extra west, is now in the siding?

A Yes, and so they pulled out and we didn't delay them any more. We were there two and a half hours and went in and got the help of the master mechanic and he said, "Have you boys tested your oil in the governors?"

Q Did you see the master mechanic?

A No, they were on the phone talking to him, the engineman, A. W. Blay, the engineer, so Archie came out --

Q Archie being the engineer?

A Yes, and he said, "We will have to go and get some oil." I said, "Haven't you got any in the engine?" He said, "No", so we got the agent's car and we went over on the highway about half a mile to a service station and we bought a quart of oil, came back, put it in the governor and we started her up and that solved our trouble right there.

Q You said it was suggested there was no oil in the engine? You mean there was no oil in the governor?

A No oil in the governor and no oil on the engine to put in it.

Q When you put this oil in the governor you went off?

A Oh yes, there was no more trouble. We took

her right into Crowsnest.

Q Now, Mr. Connor, the subdivisions you work on are on the Alberta district time card? Would that be right?

A Yes, sir.

Q And I would like you to look at these two time cards -- I don't suppose there will be any question, Mr. Chairman -- one issued September 30, 1956 for the Alberta district. I do not intend to file these, sir. I will just read what I want into the record, if I may. The other one is dated April 28th. The first one is No. 94.

A This is 95.

Q And the present one, I imagine, is No. 95. Is that right?

A It should be.

Q The one that came into force on April 28, 1957, and this one was six months or so before that?

A That is right.

Q Have you had occasion to look at the footnotes on page 13 of the earlier one, No. 94, and the footnotes on page 15 of the present one, No. 95?

A Well, I don't run up in that country. That is 300 miles north of me, 200 miles north of Calgary.

THE CHAIRMAN: Stand back when you speak.

THE WITNESS: I don't go up in that

country.

BY THE CHAIRMAN:

Q You have not read the footnotes?

A Pardon?

BY MR. LEWIS:

Q You have not read them?

A No, I didn't read that portion of it myself.

MR. LEWIS: Mr. Chairman, with your permission and to save having to call somebody from out west -- I am sure my friend will not contradict the words in this -- I should like to read two notes into the record after he has seen them.

THE CHAIRMAN: There is no possible objection to that.

MR. SINCLAIR: Is this witness going to comment on them?

MR. LEWIS: No. I am just taking the fact that he is from the west as an opportunity to put this on the record, That is about the only relationship.

MR. SINCLAIR: You do not have to do it when he is here. I will admit them if you read them out of the timetable.

MR. LEWIS: I will do it now because I have got them here. On page 13 of timetable 94, the Alberta district timetable, which came into force on September 30, 1956, I find, Mr. Chairman and members of the Commission, by looking at this the following footnote on page 13. It is

the first footnote and reads:

"Trains must stop opposite stop signs erected 25 feet clear of street line on both sides of Whyte Avenue, South Edmonton. Before crossing the street fireman must be in his seat looking out and engineman will give a short crossing whistle signal in addition to ringing bell regardless of the location of the engine."

That was the footnote in timetable No. 94 which came into effect on September 30, 1956. In the present timetable, No. 95, which came into effect on April 28, 1957, the same footnote now reads differently, sir, and it is in these words:

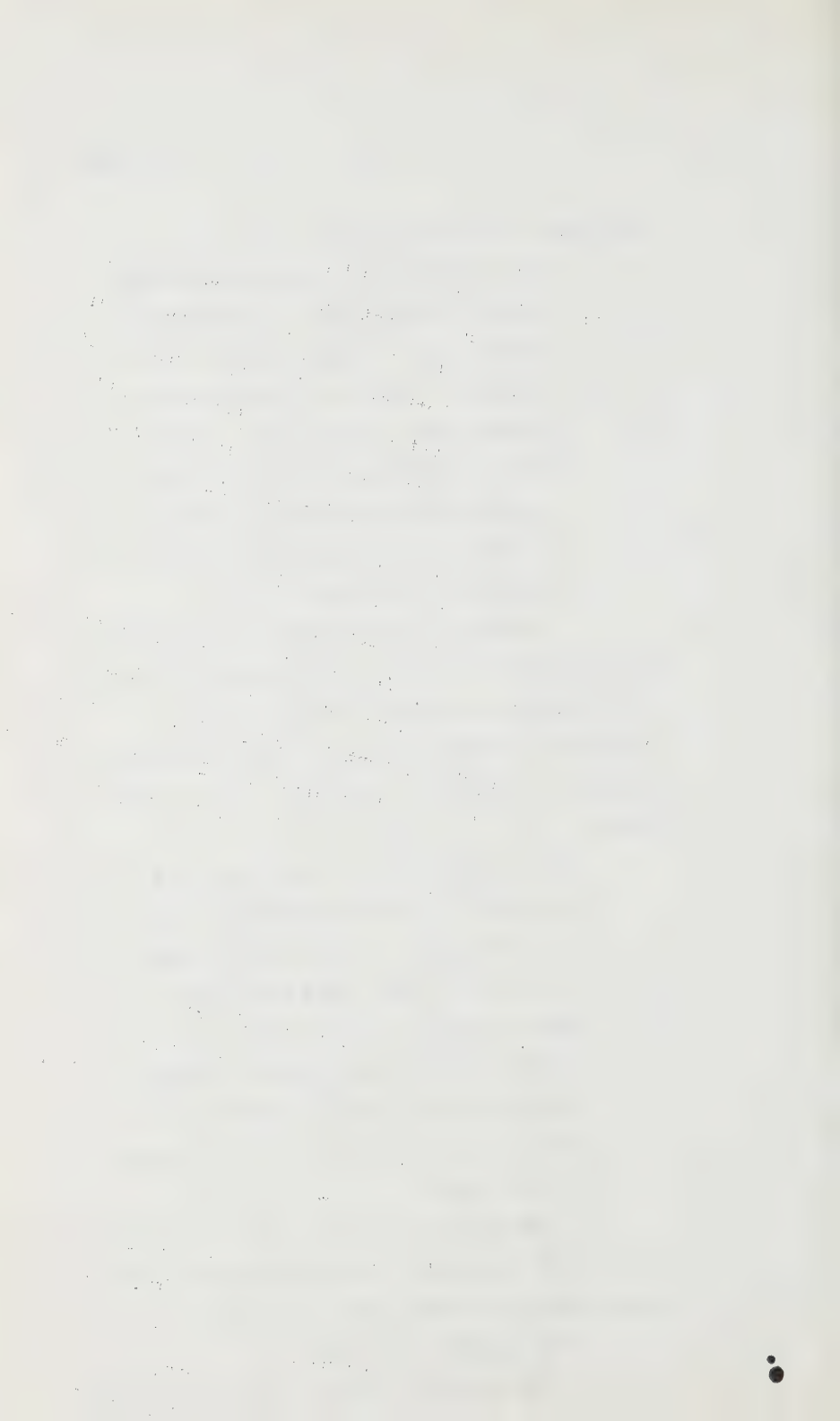
"Trains must stop at the stop signs erected 25 feet clear of street line on both sides of Whyte Avenue, public crossing at grade, South Edmonton. Before moving over this crossing, engineman will give a short crossing engine whistle signal in addition to ringing bell regardless of the location of the engine."

The earlier timetable required --

MR. SINCLAIR: Read the next one. The reason for it is in the next paragraph.

MR. LEWIS: All right.

THE CHAIRMAN: You are continuing to read



something else?

MR. LEWIS: Yes, the next paragraph of this footnote on page 15 of timetable No. 95 for the Alberta district and in effect today, I understand.

"Sounding engine whistle signals approaching public crossings at grade within Edmonton city limits, except Whyte Avenue crossing at South Edmonton, is prohibited except when necessary to prevent an accident."

My reason for reading this, Mr. Chairman -- I am not arguing, I just want to draw it to the Commission's attention -- is that the second paragraph which my friend suggested I read and which I have just read is word for word the same in both timetable No. 94 and timetable No. 95. I compared them as I read them. However, the first paragraph of No. 94 required the fireman to be in his seat looking out as well as the engine-man to give a short whistle and to ring the bell, whereas in the present one the requirement of the fireman to sit in his seat looking out is no longer present.

THE CHAIRMAN: I suppose these are instructions affecting road engines.

MR. LEWIS: Yes, I should imagine so. They are in a timetable that deals with road service.

MR. SINCLAIR: It is made clear by the

language he read that they are trains.

MR. LEWIS: Yes. The other is called an engine. I may say, Mr. Chairman, that I have asked somebody -- I do not know what importance it is but it is one of those things I would like to have on the record and perhaps it may be helpful to the Commission -- to look up and see whether the timetable that came before No. 94 contained in it any footnotes similar to either of those I have read.

BY MR. LEWIS:

Q Now, Mr. Connor, I have asked you a question with regard to grain elevators. Have you had any experience with switching at grain elevators?

A A good many years.

Q Yes, and would you tell the Commission whether there is or is not sufficient clearance between a train and the grain elevator?

A There is not sufficient distance to work in between grain elevators and the cars and anyone going in there and getting hurt is subject to discipline because this company puts out instructions that you are not to go in there. There is loading platforms, elevator platforms, elevator spouts, and we are instructed to work on the opposite side away from these elevators.

Q You say you are instructed to so work. How and by whom?

A By our superintendent or by our general superintendent. There is a monthly bulletin issued every month covering these places. It didn't specify all elevators but it says "elevators".

THE CHAIRMAN: What subdivision or subdivisions are you speaking about?

BY MR. LEWIS:

Q When you are switching at elevator tracks which subdivision would you be working on?

A Any subdivision where elevators are posted.

Q Well, you have mentioned two subdivisions that you are working on now. Would either one of them have elevators?

A Yes, all of them, all subdivisions have elevators.

Q And you are saying that you have received instructions to work on the side of the train opposite to the elevator?

A Oh yes, we are not supposed to work in between those places. There is a monthly bulletin I think you have there.

Q I show you a bulletin dated Lethbridge, April 1, 1957, headed "Lethbridge Division, Alberta District", and it is bulletin No. 83. Is that the bulletin you refer to?

A Yes, sir.

Q And the pages are not numbered but on the second sheet of the bulletin under the heading "Restricted Clearances", No. 4 reads as follows:

"Employees are warned that where restricted overhead or side clearances exist on engine house, main shop, car shop, freight shed, stockyard, loading platform, coal dock or elevator tracks such clearances will not be indicated by tell-tales or signs, nor will the locations of such restricted clearances be elsewhere or otherwise given."

Then the next paragraph reads:

"Whether or not clearances are restricted, employees are forbidden to ride on tops or sides of cars or engines when on any engine house, main shop or car shop track."

The second paragraph of that does not refer particularly to our discussion, Mr. Connor, but in paragraph 4 it says that where restricted overhead or side clearances exist on elevator tracks such clearances will not be found anywhere else, and you are supposed to know about that?

V.T.Connor

A They are not posted any place. You read a monthly bulletin and sign it and that is our instructions.

Q The instructions, sir, say that where restricted overhead and side clearances do exist with regard to elevator tracks you are supposed to know about them in effect.

A That is right; when you sign that you are supposed to read and understand what that means.

Q Could you inform the Commission where, with respect to elevator tracks there are in fact restricted side clearances?

A I know of only one elevator in my life that is built back a sufficient distance from the railroad track that you can go in and stand and work in there, and that is at Peigan Reserve. On the reserve they have one elevator and that is on Peigan Reserve. On the reserve they have one elevator.

Q The answer to my question is all but that one elevator have restricted side clearances?

A That is right.

MR. SINCLAIR: I object.

MR. LEWIS: I am sorry; my friend is right.

THE CHAIRMAN: What was the objection.

MR. SINCLAIR: He did not get the answer that this was a restricted clearance, although he put the question.

V.T.Connor

MR. LEWIS: I thought I did.

THE CHAIRMAN: As I understood the witness he said there was only this one specific point that did not have the restricted side clearance.

MR. SINCLAIR: No sir; what he said was he knew of only this one where the elevator track was far enough back to work in there.

THE CHAIRMAN: He said that, yes; too close.

MR. SINCLAIR: The words "restricted clearance" have a definite connotation.

THE CHAIRMAN: I did not have in mind the true definition when the witness was speaking. What he said was, apart from this one illustration, in fact the clearance was insufficient for him to work in there.

MR. SINCLAIR: Yes, but restricted clearance has a definite connotation. I will argue it when the time comes.

THE CHAIRMAN: Restricted clearance in that document is used in a specific sense.

MR. SINCLAIR: Yes.

THE WITNESS: What I meant was the elevator is built back from here to that wall over there.

BY MR. LEWIS:

Q What about the remaining elevators?

A All too close, within four or five feet of you, four or five feet between the car and the elevator, and there is platforms that drop down to work in the cars, elevator spouts where you put them into the cars to load them,

V.T.Connor

and all that down there. When you get down between them any distance you cannot see in there, and there is always grain doors laying down in there and wheat; you can't walk over it, and those guys don't pull in the elevator spouts all the time. Many of them I went in and tied up myself, but never paid any attention to their platforms because I do not figure I am going in there anyway, and I don't let the boys in there if I can catch them at it because it is a dangerous place to go in especially at night with obstructions in there.

Q Do you do your work in the day time or at night, Mr. Connor, or both?

A We do both night and day. I have moved out many times figuring I would make a daylight trip but I ended up in the night.

Q Have you ever seen a definition of the words "restricted clearance"?

A Well, a man presumes from that any place where it is not safe to work in.

Q First, I asked you whether you had seen a definition of the words "restricted clearance"? Have you seen it in any company bulletin or rule book or in anything else? Do you ever recall seeing a definition of these words?

A Well, look at Rule M, page 4 of the rule book beginning right after --

Q Well, all that Rule M says, Mr. Connor, at page 4 of Exhibit 27 is this:

V.T.Connor

"Employees must exercise care to avoid injury to themselves or others. They must observe the condition of equipment and the tools which they use in performing their duties and when found defective will, if practicable, put them in safe condition, reporting the defects to the proper authority."

That would not have anything to do with it.

A Read on.

Q The next paragraph reads:

"They must not ride on top or sides of cars or engines passing structures or obstructions at any point at which there is restricted overhead or side clearance and must inform themselves with respect to location of such."

This says you must take care where there is restricted overhead or side clearance.

What I am asking you, Mr. Connor, is, have you seen anywhere a definition of what makes clearance a restricted clearance?

A No, I cannot remember of ever seeing it but I know when places are restricted it is not safe to go into them and I do not go there.

Q When the term "restricted overhead or side clearance" was used in the bulletin of April 1, 1957, what did it convey to you?

A It conveyed to me just what it says, to stay away out from between those places;

V.T.Connor

at least, I hope I understand it that way,
not going in there and get myself hurt
and get disciplined for it.

Q Yes?

THE CHAIRMAN: I think we will have a
break here.

-- Recess.

--- After recess.

BY MR. LEWIS:

Q Now, would you deal further with this question of grain elevators, Mr. Connor?

A Well, I am glad to. I have gone out of Lethbridge with a load, with two units, 35 empties, and I started right in at Nobleford, switching and spotting. There are eight elevators at Nobleford. Then, I set out some empties there, spotted them and took on loads and went to Barons, cleaned out the loads there, gave them a few empties and went on to Champion or Carmangay and I filled out with some more loads and finished off my empties.

Q Which subdivision would that be on?

A That is the Aldersyde.

Q That is the Aldersyde Subdivision, and what page would it be in this timetable?

A Page 22. Then, I went over to Champion and filled out there and I went out of there with 5,000 tons, two units, up over the hill and into Vulcan. I went in to these elevator tracks. Going north, every one of them is on the east side of the track going north, and all your switching and spotting requires the left-hand side to work on.

Q The engineer's side is next to the elevators?

A He would not put his head out there because there are grain spouts down and he is liable to get his head knocked off. Many is the time I have walked in and seen some cars where the man has walked over town and left the spout in the car. I have had to take it out and leave it drop down to do my switching and carry on with my work.

Q What about the elevator platform?

A They do not pay much attention to them. I can show you 20 down where there is one up. At night time it is a hazardous place to work in there. I would not advise anybody to go in there. It is dangerous. The safety car will tell you not to go into these places.

Q You said something about the safety car?

A The safety car travels all over instructing us boys in regard to safety first. They will tell you, do not go into these places to work. There are loading platforms in there that are stationary platforms, and stockyards are stationary, and there is perhaps about eight inches between the car and the top of the platform.

I have spotted as high as 50 empties to put into the Vulcan back track. To do it at night there have been part loads they did not finish off before they quit that would have to be cut back in with these empties.

You would have there maybe ten in and a half load; five in and another half load, and if you made one slip of a car you would not be able to fix your back track. It would throw the whole works out of line.

Q What do you mean by that?

A They would not fit. You would not be able to spot the cars that were called for. In the average elevator you can take in cars four and four, pull them out and spot them, but if you leave one too many in there, like an empty they do not want, it will throw your back track out and their cars will not line up for your elevators to load; so, you have to be careful.

Q You said before that the safety car would tell you to stay out of these places. Have you or have you not, yourself, heard that?

A Yes, I have attended a lot of safety meetings, and in my experience I know enough not to go in these places. When I get a new man out with me, and I have had lots of them, the first thing I do is to tell them, don't you ride on the inside where these elevators are or you will get killed. I have stopped the engine and made them get off and get on the other side, on the left-hand side or whichever side was called for. Coming or going up and down there, we run into the same conditions because the

elevators are not all on one side. Vulcan is on the west; Kirkcaldy is on the west; and so is Blackie and Brant. On the other side is Whitney, Nobleford, Barons, Carmangay, Champion and Ensign and Mazeppa; all of those stations. So, when you are coming or going, 50 per cent of your work, if you are doing that work, is on either side.

They often sent crews out there, especially when we were moving this Durum wheat, we were hauling it south on way freights, and you try to take all the tonnage you can over the hill so you could handle the tonnage when you came back the next day, and if it was possible, keep the accumulation of tonnage there cleaned up. Once in a while I would have to call the dispatcher up to put in a train there and clean up the place because there was too much tonnage lined up for the next day, and he would do that. Regardless of whether it was day or night, right or left, you worked away from these elevator platforms, stock-yards and so on.

Q Now, Mr. Connor, I should like, with your assistance, to deal with three of the yards that you worked in. I file as Exhibit 238 a sketch of Fort MacLeod yards.

EXHIBIT No. 238 -- Sketch of
Fort MacLeod
yards.

BY MR. LEWIS:

Q This is on what subdivision?

A The Crowsnest Subdivision.

Q I suppose you first deal with this, Mr.
Connor -- if you would be good enough --
on a trip heading west, a westbound trip?

A Yes, I have had lots of them.

Q And you come from where and go to where?

A From Lethbridge you go to Crowsnest, 101
miles.

Q And you go along the C.P.R. main line?

A Yes -- well, the last trip I had, I stopped
at Monarch, that is 16 miles out of Lethbridge,
and I had to get a couple of good flax cars
to load behind eight cars, and I lifted the
Monarch loads for Calgary. I went in and
spotted the empties for flax, and then I
went on from there to MacLeod.

Q Now, your train is on the sketch?

A Well, we certainly take the train; that is
so. We backed on to our train and made
our test and we went to MacLeod.

Q You were travelling west along the C.P.R.
main line?

A Yes.

Q Then you have some work to do at MacLeod
on this trip?

A Yes.

Q What do you do; you pick up your train?

A There are lots of times we go into
Macleod with 85 or 90 cars.

HON. MR. McLAURIN: You have got
your train to Point A.

BY MR. LEWIS:

Q Your train is now at Point A on the
sketch, or let us assume it is?

A That is coming into Macleod, yes.

HON. MR. MARTINEAU: The one
Canadian Pacific main line track seems to
end at the station.

HON. MR. McLAURIN: The one
marked A is the one he is on coming from
Lethbridge to get to Macleod.

MR. LEWIS: That is also a Canadian
Pacific main line. The northern one, the
upper one ends at the station.

HON. MR. MARTINEAU: They are both
Canadian Pacific?

MR. LEWIS: Yes. The production
is a little illegible.

THE WITNESS: That is the beginning
of your Macleod Subdivision to Calgary; that
is B.

BY MR. LEWIS:

Q They are both Canadian Pacific lines?

A Yes, both Canadian Pacific lines.

Q Your train is now on the sketch and
has reached A?

A That is the main line. One minute, I haven't got that far yet. Here is the switch to your siding which holds 46 cars.

THE CHAIRMAN: Witness, if you will just listen to the question and answer Mr. Lewis we will be able to follow you a little easier.

BY MR. LEWIS:

Q You are coming from the east going westward?

A Yes, sir.

Q And you are on this Canadian Pacific main line which is an extension of what is shown as the A line on this sketch?

A That is right.

Q You were saying something about a sketch which is just east of where the letter A is on my copy?

A That is right.

Q Just a little west, which?

A East.

Q A little west of the eastern edge of the paper?

A Yes, that is right.

Q What happens at that switch?

A Well, you have a meet there with 74 or any train. He may have his set-off made and he pulls --

Q He may have his cut off made; who may have his cut off made?

- A This train you are meeting, 74. He may have his work done and he may have time to pull in, to go through the switches of A and the crossover there by the east coal chute.
- Q That is the crossover of the track called the passing track?
- A That is right, B. This man will have to head in there. It only holds 46 cars and two units, but when you have 85 or 90 cars then you have to head in there and go around him.
- Q Your train has to go around this train you are meeting?
- A Yes.
- Q How do you do that?
- A That is B on that track, B.
- Q You stay here on B?
- A Oh, no, he is on the main line. I am headed in going up the siding. The boys stop at the station, the head end of our train, and they go in and find out what is on the board for train orders. Then they come out and they proceed up B to the west end.

If they can hold the main line they will go up the Crowsnest main line A. If they cannot they will hit their crossover C and then they will go up the north main line, what

we call the Macleod Subdivision, D.

They will proceed up there provided they have checked for 541 first, or any first-class train coming down there, any train with the right of track over them. They will proceed up there until the tail end of their train --

Q Are you talking about your train or their train?

A Our train.

Q Your train?

A Our train.

Q You say "they", but you mean your train?

A Our train. Until our train is clear of the lead at the east end of the yard.

Q That is marked H?

A No, it is just at that point, just west of the mark C; that is the crossover.

Q What lead do you go on?

A You don't go up the lead, you just go over the crossover and up the north main line.

Q To the Macleod sub main?

A That is right.

Q The one that is marked D?

A Yes.

Q He goes from H west along the northerly main line, which is known as the Macleod main line and which is marked D?

- A That is right. Then whatever set-offs we have to make the head-end will cut them off and go up over the switch by E at the west end, and he will back down this lead F, and then down this lead G at the west end until he finds which track he is going to put them in, which he found out when he come in at the station there and got his orders. They will tell him where to set off.
- Q While he is doing that he is backing the engine with the cars that you are to set off west until he is clear of the switch at E and then he backs down along the lead F and down west on the lead G to the track where he is --
- A Wherever he is required to set off; it may be any one of them.
- Q While he is doing that -- that is the head-end trainman?
- A Yes.
- Q While he is doing that what are you and the rear-end trainman doing?
- A The rear-end trainman comes out of that siding B; he has that switch there to get. That is one. Then there is the other one at C is two, and the other crossover switch on the Macleod sub is three. He lines all them switches.

Then he will walk up and he will go over on the phone. It is marked phone. It is marked phone and it is right alongside this point; it is right straight south of D on the team track. There is a phone there.

Q South of the tracks?

A Yes. It is in between the main line A and that last track on the bottom. He gets on the phone and phones the office and I try by that time to have the tonnage of the train figured up. Sometimes I just haven't got it ready as there is lots of figuring in it. But if I have it I give it to him, what there is, and I tell him I will be up there just as quick as I can get my orders and come.

Q While he is lining the switches on track B and the crossover C and has been making this phone call, where have you been?

A I am in the office at the station.

Q Doing what?

A Getting my bills and orders and booking in and registering my train.

Q And when he has finished speaking to you on the phone where does he go, that is the rear-end trainman?

A He goes up with the head-end man.

BY THE CHAIRMAN:

Q As I understood it, the head-end trainman has gone up with the cut of cars up this lead, and this man, the rear-end trainman, is back here doing these other things in the meantime; is that right?

A That is right.

Q Of course the engine has to go along B in order to cross over to C and somebody has to throw these switches. I would have thought it would be the head-end trainman.

BY MR. LEWIS:

Q When the train first went along the Canadian Pacific main line and over the crossover to get to the Macleod main line, D, who threw the crossover switches at that point?

A The head-end trainman, and then the switches are left for the rear-end trainman.

Q The crossover switches and so on?

A The same ones he lined, he lines them back to normal.

Q After the train has passed?

A Yes. Those are all main line switches and they have to be left in normal position and locked.

Q Then when he has done that, when he

has done the phoning, what does this rear-end trainman do?

BY THE CHAIRMAN:

Q Which trainman does the phoning, the head-end or the rear-end?

A The rear trainman goes up to the phone usually.

Q Where is the head man?

A He is up there; he has his instructions of what to set off.

Q Where is he, up with the engine?

A No, he is up with whatever cars have to be set off, maybe back 10 or 12 cars back of the engine up towards E.

BY MR. LEWIS:

Q When the rear trainman finishes phoning where does he go?

A He goes up to the lead G or wherever the engine is and he will tell the head-end man to bring his engine into a certain track, and we will go ahead and do our work.

BY THE CHAIRMAN:

Q May I just follow that. I do not yet understand where the head-end trainman is up to that point because he does not know what track you are going to work on in the yard, information you have just given the rear-end trainman?

A All he gets here is the place to set off

his cars. That is about all the information he gets at the station, the track to make his set-off on. He will go up to the west end at E and he will make a cut of whatever cars are to go up over the switch at E and back them down the lead F and down the lead G.

Q The head-end trainman stays with the cars?

A He stays right there with the cars he knows he is setting off and he will stop them at the switch where he wants to line the switch and shove them in and leave them there. He will wait for the rear-end trainman to come up and the trainman will tell him where to work the engine to do our switching, to make our lifts. There is times I cannot give it all to him but I will give him enough to start him going until I get there.

BY MR. LEWIS:

Q Excuse me one moment. You said the head-end man would know where to set off the cars. Am I right that as your train is approaching the station and you get onto this passing track the head-end man will drop off and will go into the station to get that information?

A Yes.

Q Then he comes back and you say he knows

where to take the cut of cars?

A That is right.

Q That you are setting off from your train?

A That is correct.

THE CHAIRMAN: I am sorry but I seem to be a little thick about this. I do not understand the difference between that information and the information which the witness gives later to the rear-end trainman.

MR. LEWIS: The witness will correct me if I am wrong, but as I understand it, the information which the rear-end trainman obtains from the conductor and which he gets in the office is information as to which track in the yard they are to go into to set off the cars.

BY MR. LEWIS:

Q Is that right?

A Yes, sir.

BY THE CHAIRMAN:

Q There is one question I would like to ask. When the engine goes west to E on the main track and backs up the lead F, could he also back into lead G?

A Yes.

Q The sketch does not seem to indicate that, but he can as a matter of fact?

A Yes, that is right.

BY MR. LEWIS:

Q Then you go ahead and start your

switching?

A Yes. As soon as I get my bills and orders I go up there and start helping them. I will give the signals and the two men will ride the cars.

Q Ride the cars for what purpose?

A It is a gravity grade yard. They all run east and the minute you pull a pin on a car you have to have a man on it or it will go right out of E and down over the D rail; run through two or three switches.

Q The switching which you are doing here is the switching out of some cars that you are going to attach to your train, is that it?

A Yes. There are six crews working north out of Macleod, at least there was when I left there; five or six. They haul all this stuff from Calgary. They work down with a couple of units with 75 to 80 to 90 cars. Some of them will be for the west, some for the east and some will stay there. Some will be spotted at the oil houses or team tracks. They have to be switched out and they stay there. I may get 35 cars out of a 50-car track.

When I have switched all of them, all the cars out of that track, I will

take 10 out and maybe put 5 back. I will build my train on another track, if I can find one clear. I will build my whole train in there.

That would not include the train I have left over on track D. The train I have left on D is all going west. What I am doing is getting a fill-out for my train to take down west to Macleod.

Q That is what your switching is directed to?

A Yes, sir.

Q Is there a yard engine at Macleod?

A There is no yard engine at Macleod and there has not been for three years. It is a terrific place to work in, especially in the winter. The blizzards there are terrible. Sometimes I wish I never saw it.

Q What problems, if any, do you have in switching in this yard?

A The problem is that if you fail to take the cars out --

Q I am talking about the west end of the yard, the switching you are now doing. What are your problems, if any?

A You pull up there and if you take 35 cars then you go out onto the Macleod sub track. Then you have to get out

here where it says Canadian Pacific
Calgary main line. You have to get a
man out there to give the signals and
the other man is there to pull the pins
and there is only one man riding because
every time you pull a pin on any of
these cars you have to have a man on it.
I would rather ride cars than pull pins,
so I ride cars too.

--

--

--

Q Yes?

A But if I start switching there I can just keep two men very busy from one car to another.

Q What, if any, is your signal passing problem that you have when you are going west?

A We need to work on the left-hand side of the engine going west there and there is no problem of signals, not a thing to obscure your vision at all.

Q Which side of the engine do you work?

A You work on the left hand, the fireman's side it is all done.

Q Pardon?

A It is all done on the fireman's side.

Q Yes?

A Sometimes I wish we could figure a way out of it but that is the way it stands.

THE CHAIRMAN: I did not hear that answer.

THE WITNESS: I said I wish sometimes I could figure another way out of it.

BY MR. LEWIS:

Q Sometimes you what?

A I would like to figure another way to get around it so I could work on the engineer's side because it is faster.

Q Yes, but you work on the fireman's side?

A Yes, you have to work on the fireman's side.

Q Well then, is there anything else that you want to comment on with respect to a train going west?

- A No, I have put in as high as three and four hours switching right there and a lot of hard work and there is a lot of walking and a lot of climbing and to do it safely it requires a five man job right at that place.
- Q Now, suppose you were heading east, you were going eastbound instead of westbound, and you had some switching to do. Would you do it in the same part, the west part of the yard, or do you do it in the east part of the yard?
- A We do it on the east end.
- Q Yes?
- A We come down the main line "A".
- Q From "E" to --
- A From the west to the east.
- Q From the west to "A". Yes?
- A And we stop clear of that cross-over at "C".
- Q Yes?
- A The tail end man will walk down on the north side of the train and we are headed east. I go down on the south side and we inspect our train. I walk over to the phone and I tell him I have got 31 north for you, where do you want them, and they will give me the track to set out in, usually No. 2 or 3.
- Q Yes?
- A The tail end man will go across -- I will get the list off of them, the lifts, the switching to be done, and if there is not too much I will go right on down the train. The tail end

1891

My dear Mr. [illegible]
I have just received your letter of the 14th inst.
and am glad to hear that you are well.
I am also well and hope this letter finds you
the same. I have been thinking of you
very much lately and wondering how you
are getting on. I have been very busy
lately but I have managed to find some
time to write you. I hope you will
write back soon. I am very
truly yours,
[illegible]

I am very truly yours,
[illegible]
I have been thinking of you
very much lately and wondering
how you are getting on. I
have been very busy lately
but I have managed to find
some time to write you. I
hope you will write back
soon. I am very truly
yours,
[illegible]

man will go over and line up the switch where he wants the set-off made, No. 2 or No. 3. The head end man will -- after the cut is made will go down over the cross-over at "C" and he will back through the cross-over and there is a stub switch right there takes you on the lead.

Q Right where?

A Right just west of that cross-over switch at "C" there is a little stub switch there for the lead, takes you into the lead.

Q Which lead?

A Onto lead "H".

Q The lead marked "H"?

A Yes.

Q Yes?

A You back the set-off into 2 or 3, put a man on the cars. It varies; we never have the same set-off the same every day.

Q Yes?

A Then he will tie them down, tie the hand brakes. If he is setting off 30 it will require about four hand brakes on there, very good ones, so they won't run out.

Q And all this is done by the head brakeman?

A Yes.

Q Where are you and the rear end brakeman?

A I walk on down. If there is not too much to do he has got his list and they can go over there and do it themselves if they are not

too heavy. If there is too much to do I will just go over with them and we will all go to work over there.

Q If there is not too much to do what do you do?

A I go down to the station, deliver my bills and get my orders, register my train and walk back up and if they are not done I will give them a hand to finish up their switching and then we go out on the main line and one of us will have to go back to the rear end to make an air test and we get our air pumped up and we will make our air test and then we will proceed on track "A" to Lethbridge.

Q Do you have any problems in switching on the east end of the yard up and down the lead marked "H"?

A Well, yes, that is an uphill job. Everything you make a switch of you have got to shove up and push it into the clear. You have got to tie the brake on it so it won't run back out. If you have a long train to pull out there you have got to have men working both sides of the engine. I won't say whether it is 30 per cent of the time one side or what the per cent is but I would say fifty-fifty.

Q Yes?

A To get up to where you can see your engine crew, I don't care which side it is as long as you get hold of him, until we get back to where

we can work on the lead again, lead "H", and when we get our switching done we pull out down "A", the main line, back on to our train out there and make our air test and proceed east.

Q Is there any other comment you want to make on Exhibit 238 or does that cover it?

A No, that covers it pretty well. It is routine. All I can say is it is routine to not only me but it is eleven crews that is running up and down there and they are all going through the same procedure. Sometimes it is easy. Sometimes it is hard, a lot of hard switching because it is a junction point from Calgary and there is a lot of stuff moving and it is up to us to move it.

Q It is not any harder than it is here, Mr. Connor?

A Pardon?

Q It is not any harder than it is here, working in the Macleod yard?

A Well, yes, because everything you cut off, you cannot trust anything there, you cannot leave it a second.

THE CHAIRMAN: You do not want that question answered.

MR. SINCLAIR: He got his answer.

THE CHAIRMAN: Is this a new exhibit?

MR. LEWIS: Yes, Exhibit 239, Mr. Chairman, the yard at Coleman, a sketch of the yard at Coleman.

EXHIBIT NO. 239 -- Sketch of yard at
Coleman.

BY MR. LEWIS:

Q Now, suppose we travel east here for the moment, Mr. Connor, and you arrive onto the sketch at "B", and if you have to do some work at Coleman what happens? Where do you go from there?

A Well, the last time I switched that I came down there and out of Crowsnest I switched the Hazel spur to get six lime rock for the Picture Butte sugar factory, three cars of lime. I came down the main line which is "A" going east. I stopped at the station and we have to do the station switching there.

Q Where is that?

A At Coleman.

Q At Coleman?

A Yes.

Q Yes?

A What I mean station switching, that includes the whole yard.

Q Yes?

A We went down the main line over that switch where the two "A's" are.

Q Where what is?

A With our whole train we went down over that switch with our whole train on the east end --

Q To the east end of the yard?

A Yes, where the two A's are there is a switch there.

Q Just a moment, there is only one "A" on the other maps.

MR. SINCLAIR: There is only one "A" on mine.

THE WITNESS: Well, I am not cross-eyed. There is two here.

BY MR. LEWIS:

Q They are not on the other maps.

A Oh.

Q Just assume that one is not there -- until you went over the switch past "A" with your entire train you said?

A Yes, sir.

Q Yes?

A We backed our train up -- we threw the switch behind us.

Q Yes?

A And we backed our train up the siding which we call No. 1 there in front of the station.

Q Yes?

A We backed our caboose up just to clear that track that leads off down into No. 4, towards 4, the lead.

Q Yes?

A And we left the caboose there and then I went down and I backed -- I went out again rather --

Q You left the caboose on that No. 1 track just west of the switch?

A Yes.

Q To the other tracks?

- A Yes.
- Q And you pulled the train back again?
- A Then I took the rest of the cars with me and I went down over that switch --
- Q Over what switch?
- A Just east of the crossing.
- Q Until your last car was clear of it? Right?
- A That is right, and I backed them down into Suicide Alley here or No. 7 and I left them on top of 36 O.C.S. loads that we were going to take with us.
- Q Just a moment, please. If I may summarize so we will know where you are, you had left your caboose on track No. 1?
- A That is right.
- Q You then pulled the train until the last car was clear of the switch which is a little east of the allowance road?
- A That is right.
- Q And when you had done that you threw the switch there?
- A Yes, sir.
- Q And took and backed your train down the track going in a southwesterly direction?
- A That is right.
- Q Into No. 7?
- A That is right.
- Q Is that right?
- A That is right.
- Q You left all your cars in No. 7, did you?

- A Left all of our cars in No. 7 coupled into 36 O.C.S. loads of coal.
- Q O.C.S.?
- A That is our company service.
- Q On company service?
- A Yes.
- Q There were already 36 cars of coal in there when you backed the rest of your train in there?
- A Yes, and left it.
- Q How many cars did you have, do you remember?
- A Six rock and two east and west, one west loaded.
- Q That would be about nine?
- A That is nine.
- Q That you left there and then you cut the engine off?
- A We cut the engine off and came over into 8 and 9 and we put 31 west loads out of them two tracks up into tracks 2 and 3.
- Q Now, did you have any problems in switching tracks 8 and 9 out and then putting the cars back into No. 2 and 3 up above on the sketch?
- A There are no problems if you have got a good crew and everybody in their place.
- Q I mean did you give the signals on the engineer's side or on the fireman's side?
- A Oh, we give them on the fireman's side there because there is a great big pile of refuse from the coke ovens and slack coal and there is no view there of anybody but the fireman. You have got to put a man back about six cars. Your head

end man gets up and lets the brakes off and then he will stick around about six cars from the head end and hook the hose and let off the brakes what is back on the tail end and might have a joint or two back in there to make, and then we can see the brakeman and he can see the fireman around that curve.

Q How did you take your engine into 8 and 9? You were light when you went down there?

A Yes.

Q Did you nose in or back in?

A Well, there is no place to turn it. We are headed east. There is no place to turn it there.

Q I know that, Mr. Connor.

A So we backed in.

Q So that your engineer was on the south side and your fireman on the north side of the engine?

A That is right.

THE CHAIRMAN: Where were these piles that were obstructing the view?

BY MR. LEWIS:

Q Where are these coke piles and so on you are talking about that would restrict the view?

A They run from away back here.

Q Where?

A This end of these coke ovens, at the west end practically all the way down to --

Q Where it is marked "coke pile"?

A Yes, coke pile.

Q Correct me if I am wrong; is not all of that on the fireman's side of the engine?

A Yes, that is right.

Q I beg your pardon?

A That is right.

Q What, therefore, have you to remark about those obstructions making it necessary to give signals to the fireman?

A Because you can't work over in here. These are cars --

Q Don't say "In here".

A In 8 and 9; you cannot work in 8 and 9 through there because there are cars in there.

Q Just a moment, please. These obstructions of coke and so on, along here which are found on the inside of the curve, they are on the fireman's side?

A Yes, that is right.

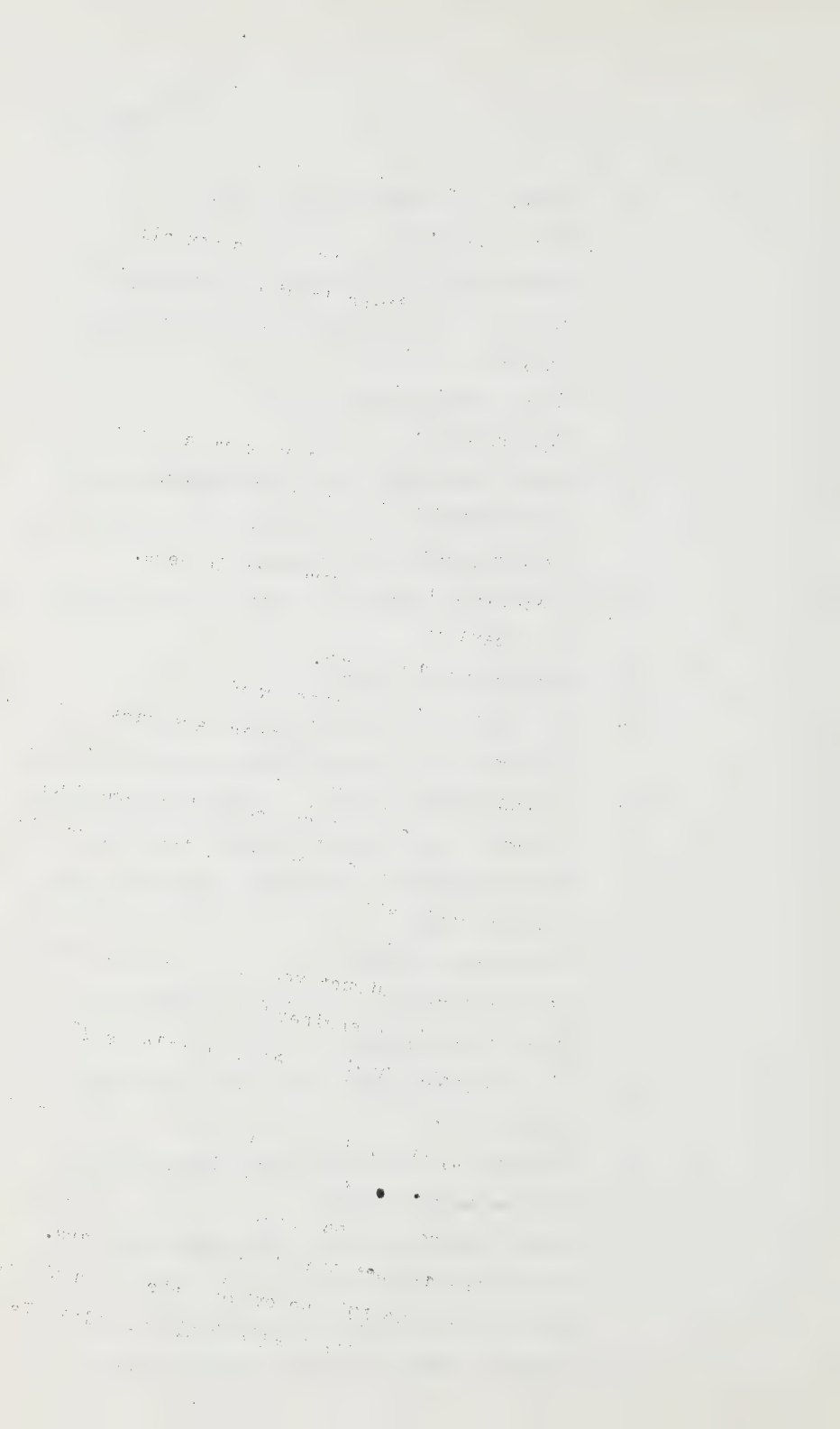
Q Do they obstruct you giving signals on that side of the engine?

A Oh, absolutely, that coke pile is 20 feet high.

Q How, then, do you pass your signals to the fireman on that side?

A Leave the head end man down there where he can see back there about 20 cars. Then we put the other brakeman on the top.

Q Where is the head end man exactly? Is he



on the ground?

A He is on the ground or on top, wherever he can get.

Q Yes?

A Might both be on top.

Q Yes.

A And then he gets a signal from there and he gives it to the fireman.

Q Why can you not work on the engineer's side in view of the obstructions you have on the fireman's side?

A Because they just have cars in here.

Q In where?

A In 8 and 9, and run down in there, clear out, even sometimes up here, this is clear, where you cannot see even between them, they are close together. You cannot get down in there to see anybody on that curve.

Q Mr. Connor, I understood you were telling us -- perhaps I was wrong -- that you were pulling cars out of 8 and 9. Is that right?

A That is right.

Q Suppose you are pulling cars out of 9.

A Out of 9?

Q Yes? I am anxious for you to describe it to the Commission, Mr. Connor.

A Then I give the brakeman a sign --

THE CHAIRMAN: Witness, you just wait until the question is put and then answer it.

BY MR. LEWIS:

Q I am anxious for you to explain this to the Commission so that we will know exactly where we are. Suppose you are switching track No.9. You have backed the engine into the track.

A Yes.

Q Therefore your fireman is on the north side and the engineer is on the south side; is that right?

A That is right.

Q Now, you just said a moment ago that there are often cars in track No.8?

A That is right.

Q While you were working on track No.9.

A Yes.

Q Is that right? Well, would or would not the cars in No.8 make it difficult to pass signals to the fireman on that side?

A It certainly would.

Q Suppose, then, you are still working No.9. Keep your mind on No.9, if you will, Mr. Connor?

A Yes.

Q Why in that case, do you not work on the other side, on the engineer's side?

A We will.

Q If you work No.9?

A Yes.

Q Then you pass the signals on the engineer's side?

A Yes, sir.

Q Is that what you are saying?

A Yes, sir.

Q What about this curve you referred to here before?

A Yes, the curve that goes up - -
not

Q I am/speaking about No.8.

A Oh, in here?

Q We are still on No.9.

A Yes, I know.

Q One thing at a time.

A What I mean is the head end man will take a position up here where he can see up to 9.

Q Up where?

A Up where it says "tipple" west end of the yard, right in here. Here is the tipple.

Q See cars on No.9 here.

A Yes.

Q Right?

A That is right.

Q You take the engine down to switch those cars out?

A Yes.

Q Is that right? Now, how do you pass your signals, then, when you want to pull forward. You do pull forward to pull the cars out?

A Yes.

Q To switch them into tracks 4 and 5?

A Yes, sir.

Q You have to pull forward, do you not, in an easterly direction.

MR. SINCLAIR: Now, we are in on 4 and 5.

MR. LEWIS: 2 and 3, I am sorry.

BY MR. LEWIS:

Q It is on 2 and 3 that you leave these cars?

A Yes.

Q You have to pull the cars out to 9 in an easterly direction and then in a northerly direction; is that right?

A That is right.

Q And over the allowance road?

A Yes.

Q And pass the --

A Little switch there.

Q Switch?

A Yes.

Q You clear your switch and that would get you on to No.1 or on to No.2, as the case may be?

A Yes.

Q Is that right?

A That is right.

Q All right; then how do you pass the signals when you are on No.9 to take your cars east and north along the track to the switch on the main highway or over the main highway?

A The head end man . --

MR. SINCLAIR: The main line.

THE WITNESS: The head end man will get up
on top ---

BY MR. LEWIS:

Q Where?

A On this curve.

Q Near the engine?

A As near as he can on the curve, and he will
give him the sign to pull down, and if we
got 25 loads in there to come we will pull
them down and we will cut off what we can
handle without going out/over the main line
switch here at "A".

THE CHAIRMAN: Ask him where does he
give the signal.

BY MR. LEWIS:

Q Where do you give the man the signal?

A Up on the top of the train.

Q You are up on top of the car facing west?

A Yes.

Q Your head end man on top of the car?

A Down here.

Q You are near the engine?

A Yes.

Q You give the head end man a signal?

A Yes.

Q The head end man gives the signal to whom?

A To the engineer.

Q So that you give signals direct to the
engineer when working track No.9?

A Yes, that is right.

Q Even when going around this curve?

A Yes. Once we give him the signal he goes down and goes out around this curve.

Q Which curve?

A Around this curve here.

Q The curve that goes toward the main line?

A That is right.

Q You have no difficulty, or have you, giving signals to the engineer at that point?

A No, not a bit. In fact, we work ^{it} all the time. ^{I will} If there is any reason why they cannot/either pull all this down and cut off what I want, leave the rest sitting right there and cut off and ^{will}/work with the engineer and then I will pull out what I want and take them up into two or three. We put up as high as 51 loads there one morning.

THE CHAIRMAN: Would the same apply to No.8.

BY MR. LEWIS:

Q Would the same thing apply to No.8?

A No, No.8 there is a difficult place where the pile of coke is in there. You cannot get a signal there for six cars from the engine.

BY THE CHAIRMAN:

Q Is there more coke down there in No.8?

A It runs from that pile there, and then there

1000

2. *Chrysomelids*

is another pile on No.8.

Q One is 9?

A Yes.

MR. LEWIS: I was wondering, Mr.Chairman, whether you wanted to go on until we finished with this exhibit. I would not mind cutting into it now.

THE CHAIRMAN: Perhaps we had better adjourn until 10.00 tomorrow morning.

-- The Commission adjourned at 4.07 p.m. until 10.00 a.m. Tuesday, June 4, 1957.

ROYAL COMMISSION ON EMPLOYMENT OF FIREMEN
ON DIESEL LOCOMOTIVES IN FREIGHT AND YARD
SERVICE ON THE CANADIAN PACIFIC RAILWAY

47

PROCEEDINGS

DATE: June 4, 1957

PLACE: Ottawa, Ont.

PAGES: 6580 - 6765

VOLUME: 47

E. L. FEATHERSTON
SHORTHAND REPORTER
241 MANOR AVENUE
ROCKCLIFFE PARK
OTTAWA, CANADA

Hon. Mr. Martineau

I N D E X

Witnesses

CONNOR, V. T.		
Exam. by Mr. Lewis	.....	6582
Exam. by Mr. Sinclair	.....	6611
Exam. by Mr. Lewis	.....	6640
Exam. by Mr. Sinclair	.....	6663
Exam. by Mr. Lewis	.....	6665
BRUNNER, Walter		
Exam. by Mr. Sinclair	.....	6674
Exam. by Mr. Lewis	.....	6751

Exhibits

No. 240 - Sketch, Crowsnest Yard	6596
----------------------------------	-------	------

ROYAL COMMISSION ON EMPLOYMENT OF
FIREMEN ON DIESEL LOCOMOTIVES IN
FREIGHT AND YARD SERVICE ON THE
CANADIAN PACIFIC RAILWAY

Proceedings of public
hearing held at Ottawa,
Ontario, Tuesday,
June 4, 1957

PRESENT:

Hon. R. L. Kellock,	Chairman
Hon. C. C. McLaurin,	Member
Hon. Jean Martineau,	Member
Douglas M. Fraser,	Secretary
A. R. Winship,	Asst. Secretary

APPEARANCES:

D. W. Mundell, Q.C.,	Representing the
C. J. A. Hughes, Q.C.,	Commission
I. D. Sinclair,	Representing the
Allan Findlay,	Canadian Pacific Railway Company
David Lewis,	Representing the Brotherhood of Locomotive Firemen and Enginemen

Tuesday,
June 4, 1957.

47th DAY

MORNING SESSION

---The Commission resumed at 10.00 a.m.

V. T. CONNOR, recalled.

EXAMINED BY MR. LEWIS:

- Q Mr. Connor, at adjournment yesterday we were dealing with Exhibit 239, the sketch of the Coleman yard. Mr. Chairman, it might help if I recalled to Mr. Connor briefly how far we had got. You had come into the yard with an engine and nine cars and as I remember it you came up -- if I am wrong you correct me -- you had set nine cars off on Track No. 7.
- A That is correct.
- Q On top of 36 O.C.S., as you called it, on company service cars which were in that track?
- A That is right.
- Q Then you took the engine light and went into Track No. 9 to pull that track?
- A That is right.
- Q You informed the Commission that when working on that track you are able to and do give signals on the engineer's side?
- A That is right.
- Q Now, we will start from there, Mr. Connor, and assume that you have coupled onto 20 or 30 or 40, it does not matter, cars on Track No. 9?
- A That is right.
- Q As I remember, you also informed the

Commission that the destination for those cars, or some of them, was Tracks Nos. 2 and 3?

A That is right.

Q Which I think you call storage tracks?

A That is right.

Q Well then, you have coupled your engine onto Track No. 9 and you are pulling that track out around the curve in the direction of the main line?

A That is right.

Q Do you take the entire drag of 20 or 30 or 40 cars right out or do you stop before you get to the main line?

A No, we cut off 10 and take 10.

Q How far do you pull them down?

A Down to clear of No. 8.

Q Down to clear of No. 8?

A Yes.

Q That would be somewhere near that little bridge over the creek, would it?

A There is a switch, as you see, just west of that bridge and No. 8 leads off of No. 9 there and we stop clear of No. 8.

Q Then you say you cut 10 cars off.

A Yes.

Q That track. Why do you do that? Why do you cut off 10 cars?

A Because of the distance between F and the main line switch at E.

Q That is the distance between what is now marked as the switch at E and the main line and the switch at F, which is your junction with No. 9 and No. 1; the distance between E and F is such that it will hold 10 cars and your engine; is that right?

A Yes.

Q I am sure my friend won't object if I help a little here. You do that because you do not want to occupy the main line in your switching operations?

A That is correct.

Q So you cut off 10 cars and then pull them up to the track between E and F; is that right?

THE CHAIRMAN: That is what he has just done.

BY MR. LEWIS:

Q Clear of F, is that right?

A That is right.

Q Then you back down into either 2 or 3?

A That is right.

Q Which of those tracks do you usually fill first?

A Well, we usually fill No. 3 and if the track will not hold them, we will put them into No. 2.

Q Why do you fill No. 3 first? Is there any reason for that?

- A When the boys come in in the middle of the night to set off a train in the lower yard, which often happens, it gives them a long track in No. 2 to get rid of their empties.
- Q As you back down; let us assume for the moment that as you back these 10 cars down into No. 3, do you work on the engineer's side or on the fireman's side?
- A Well, we work on both sides, but we usually give the signals to the engineer until we get more cars up in there, and in fact we work both sides but we can work on the engineer's side for that.
- Q Where do you work on the engineer's side and where do you work on the fireman's side? You said you work both sides?
- A Coming back on the engineer's side, and when we are coming back into the yard on the curve, on the fireman's side.
- Q That is the curve getting into No. 3?
- A Yes. There is a large curve into 2 and 3.
- Q Then when you get onto either 2 or 3 you are on the straight?
- A That is right.
- Q And then you work on the engineer's side?

A That is right.

Q Having placed your 10 cars in No. 3, then I assume, Mr. Connor, we do not need to repeat the move; you then detach the engine, go through the switch at F and go down again to No. 9 to pick up another 10 cars and repeat the move?

A That is correct.

Q All right, that deals with Track No. 9. Suppose you had to work Track No. 8 instead of Track No. 9, as you sometimes do, do you?

A Yes. We might get a billing off both tracks.

Q If you have to work Track No. 8, Mr. Connor, do you work on the engineer's side and give signals on the engineer's side, or on the fireman's side, working No. 8?

A When you go down into No. 8 there is a big waste pile, slag, coke, in there. That is in D. You leave your head-end man there, that is the practice, and you go back and check the cars, see that the joints are all made and the brakes are off, and then you pull them off and pull them down the same as you had on No. 9.

THE CHAIRMAN: He has not answered your question.

BY MR. LEWIS:

Q When you have done that and you have checked your train and coupled the air hose and so on, you pull it as you pulled No. 9?

A That is right.

Q Do you give the signals on the fireman's side or on the engineer's side?

A Well, to start our pull we have to come out on the fireman's side if there is cars in No. 9.

Q If there are cars in No. 9 you do it on the fireman's side?

A Yes.

Q And if there are no cars in No. 9?

A We give it to the engineer.

THE CHAIRMAN: That would be going down into No. 8 as well as coming out of No. 8.

BY MR. LEWIS:

Q You heard what the Chairman said. Do you do the same thing going into No. 8 as well as pulling out of No. 8?

A Depends how far the cars are back in No. 8. If they are back in behind the coke oven or the coke pile at D we work on the left-hand side.

BY THE CHAIRMAN:

Q You would go into No. 8 with a light engine?

A Yes.

Q Then would you give the signals on the fireman's side?

A If No. 8 is back far enough on the curve behind that coke pile.

BY MR. LEWIS:

Q Then, Mr. Connor, let us assume that having pulled No. 8 or whatever you need out of No. 8, you repeat the same move as we described for No. 9. You back down the 10 cars between E and F and back down into No. 3 or No. 2, as the case may be?

A That is right.

Q And you give the signals the same way as in the case of the former movement?

A If I have no more room in No. 3 and have to put the balance into No. 2 then I cannot work on the engineer's side because the cars are obstructing the view, no matter where you stand. If you work the fireman's side you can shove them down in front of the station on No. 2.

Q In other words, you have to work on the fireman's side, not only going around the curve but even when you are on the straight on No. 2 because of the cars on No. 3 obstructing your view; is that right?

- A As soon as he gets around the curve on the straight, then you can work on the engineer's side between 2 and 3.
- Q Between the cars on 2 and 3?
- A Yes, there is sufficient clearance in there to do your work.
- Q Is there anything else you want to comment on with regard to Exhibit 239, Mr. Connor, or does that cover it?
- A That covers it, except going down to get our train. We hook up our air hose, cut off the brakes. It is usually good policy to have the engine on there in that track before you let off the brakes.
- Q That is Track No. 7?
- A Yes. We are on our train that we are going to lift.
- Q You bring your engine back to E where you have your train?
- A That is right. We connect in the air and then we let our brakes off. That is a very steep grade there and it isn't good policy to let the brakes off in there unless you have an engine on it because once they start on you they are gone and nothing will stop them.
- Q So you put your engine on the train first and couple it all up and then let your brakes go?

A That is right.

Q When you have done that I suppose you pump up your air and get going?

A We pull right out of there down over No. E switch.

Q May I stop you there. In doing that do you work on the engineer's side or on the fireman's side, pulling that train out of No. 7?

A That is another place where we have to work on the fireman's side because a man would have to walk back down there --

Q Back down where?

A To the engine, pretty near have to walk right up and tell the engineer to go ahead. We have never been doing that, we have always worked the fireman's side in there.

Q Then you pull the train up?

A Over the switch at E and the rear-end trainman gets off at that switch at F. There is a derail there and he lines that switch and puts the derail on and locks it.

--

--

Q Yes?

A I go over to the caboose and let the brake off and on that grade that caboose will start itself nine times out of ten.

Q Perhaps the members of the Commission may not recall that the first thing you did was to take your caboose off and leave it in track No. 1.

A That is right, just into clear.

Q So you go to the caboose and you let the brake off the caboose and the caboose runs itself?

A That is right, a gravity grade there.

Q Down the grade?

A That is right, and couple in our air and we proceed.

Q And then you go ahead east?

A That is right.

Q Now, Mr. Connor, when you go east from Coleman -- I do not have any sketch for this -- you do some work at Green Hill mine, do you not?

A Well, that particular day they had -- pardon me -- at Green Hill mine at the west end there is just a little spur in there for lumber --

BY HON. MR. McLAURIN:

Q That is at Blairmore?

A Well, it is up at the west end, Green Hill mine, where the empties are put in. There is two little spurs, one an oil spur and one a planing mill.

BY MR. LEWIS:

Q It is called Blairmore?

A Yes.

Q The station is Blairmore?

A Yes, it is just a mile west of Blairmore. We don't have to do this all the time but I did this day. They wanted to get these tanks out and two cars of lumber, commercial loads, so we stopped there and I cut the engine off and nosed in and got them on the nose of the engine, backed them on to our train.

Q Yes?

A We went down to the west switch at Blairmore. We stopped and I cut the engine off and we pulled the pin on them and let them run down the main line.

Q That is, you pulled the pin on the cars?

A On the five cars. They were north loads, the five of them, so I went down through the siding with the engine, came back to the main line and back on to these five cars and backed these five cars on to our train and then we pulled our train down into Blairmore yard, which I do not like to do but I will. It is an awfully heavy grade and if the brakes leak off it would not be very nice to leave them up there. It would save a lot of work and time, so we hung on to our five cars when we got down there and we had them.

Out of Green Hill mine, when you go down into Green Hill mine it is a left-hand curve down there and quite a grade down into

that mine and at the bottom of that grade is the main government highway and there must be a man at that crossing to protect it against vehicles and the public.

Q May I interrupt you, Mr. Connor. I drew your attention yesterday to a bulletin issued April 1, 1957, and in the same bulletin there is this instruction under the heading "Crowsnest Subdivision":

"Trains moving over crossing east spur, Green Hill mine must not exceed a speed limit of 10 miles per hour and all switching movements over the crossing will be flagged by a man on the ground in addition to which a flagman must take a conspicuous position on the leading car."

A That is correct.

Q So at that crossing as you go out of Green Hill and on this grade you have to have one of your brakemen flag the crossing?

A Well, I usually take that over.

Q You flag the crossing and one of your brakemen is on the leading point of the car?

A On the end of the five cars and the other brakeman, he goes back and we only have a few to get out of there so we do not bother standing clear of the cross^{ing}. We went right in and coupled up and proceeded out of there. I don't think we blocked the crossing over

three or four minutes.

Q When this happens, are you coming around this left curve that you mentioned?

A Oh yes, we are still on the curve.

Q And in that position, with yourself flagging the crossing, one of your brakemen on the lead point of the leading car and the other brakeman taking off the brakes or whatever it was --

THE CHAIRMAN: Where was he?

MR. LEWIS: He is backing down over this crossing.

THE CHAIRMAN: No, the last brakeman.

BY MR. LEWIS:

Q Where is the head end brakeman?

A He was riding the tail end of the five cars down over the crossing.

Q No, the other one?

A Coming out?

Q When you came over this crossing you were flagging the crossing?

A That is right.

Q And one of your brakemen is at the leading car going over the crossing?

A That is right.

Q Where is the other brakeman?

A He is down letting the brakes off.

BY THE CHAIRMAN:

Q Where?

A In Green Hill mine which is clear of the crossing.

Q He has nothing to do with the movement?

A Pardon?

Q He is not associated with the movement?

A No, he went down to check his cars and let the brakes off. The reason we do that, we make a quick move so as not to block the highway. If you block it five minutes you get cars lined up half a mile each side. After we coupled on we pulled right out to the main line and coupled up, coupled on our air.

BY MR. LEWIS:

Q When you go around this left curve and have to go over this crossing which has to be flagged in the way in which the bulletin has suggested, where do you give signals, on the engineer's side or the fireman's side?

A You give them on the fireman's side.

Q Is there any way in which you could position yourself or your men to give them on the engineer's side?

A Oh yes, I could put them out there. I would have to put them out maybe 200 feet to the side to repeat the signals from the crossing and the man riding the car but there is nobody then down there doing the work in the mine hooking up the hose or anything so we never made a practice of doing that. The tail end man goes ahead and gets his train ready.

Q If I may try to understand you, in other

words, you would have to take the other brake-man who you said before was down in the mine?

A Getting the cars ready.

Q And taking the brakes off, you would have to take him off that job and put him some 200 feet out on the side to relay signals to your man at the lead end?

A That is right.

Q And to relay them to the engineer?

A That is correct.

Q You say you did not do that because you were trying to get the job done quickly?

A Well, yes, we don't want to flag that crossing any longer than we have to.

Q Now, the only other sketch, Mr. Connor, that we have to deal with in your evidence is a sketch of the Crowsnest yard which I should like to file and which will be Exhibit 240, Mr. Chairman.

EXHIBIT NO. 240 -- Sketch of Crowsnest yard.

BY MR. LEWIS:

Q With regard to Exhibit 240, the Crowsnest yard, I think you want to describe to the Commission your moves when getting a train ready to pull out and pulling out of that yard. Is that right?

A Yes.

Q hat tracks would you usually have to be

working on?

A Well, sometimes we have got to work them all.

Q And you have to switch your train out of these tracks?

A That is right.

Q Where do you marshal your train? Which track do you marshal it on?

A If the passenger is gone we use the main line on account of it is a long track.

Q And if it is not gone you --

A We try and get one or two which is long tracks.

Q And how many cars would you usually take out of this yard when you start on a tour of duty?

A Well, it is a matter of tons mostly more than the cars. We take 5,000 tons out of there with two units and then we reduce to 3,450 at Burmis 22 miles east.

Q Because of the grade?

A And then we have a train for over the controlling grade which is at Pincher Hill.

THE CHAIRMAN: Are you speaking of a movement that originates here in this yard?

MR. LEWIS: Yes, sir. I thought I would get these preliminaries.

BY MR. LEWIS:

Q Can you give the Commission an idea of the range of number of cars that would give you 5,000 tons?

A Well, if I went into full details I don't know whether they would be interested in what I was going to say.

Q Give us an idea of it. Would it be 50 cars, 75?

A It might be 85 cars. It depends on what the tonnage is. In other words, if it is lumber they are light loads. They run about 35 to 22, and if there is commercial coal which are in the big gondolas they run from 75 to 29, 75 contents and 29 tare. Some may run from 81 to 25 but there is no big dump with more capacity than 105 tons, that is, $5\frac{1}{2}$ and 11 brass, $6\frac{1}{2}$ by 11 brass in those cars, and the tonnage is based on the journals.

Q Then you would have what?

A 75 to 85 to 90 cars.

Q And they would be on several of the tracks in this yard and you would have to switch them out and build your train, as you say, on the C.P.R. main line if the passenger is gone or on No. 1 or No. 2 if the passenger is not gone yet?

A That is correct.

Q Now, to hurry this up a little, Mr. Connor, and get to the point where there may be something of interest, am I right in suggesting to you that your problem of signal passing arises when you go up past "A" between these rock cuts?

A That is our big problem.

Q Do you have any difficulty passing signals on the engineer's side anywhere else?

A Well, not only just in short cut curves down to the point from the lead on the cars. If you have ten or twelve cars and there is cars down the lead sometimes you have to work both sides.

Q Yes?

A But if you get away from there the average work is done on the engineer's side because that is the lead side.

Q Then, how many cars can you place between the cross-over marked "B", the northern switch of the cross-over or is it really the eastern switch -- I see north is towards the left -- the eastern switch of the cross-over and the rock cuts? How many cars can you get into that curve?

A With two units and 15 cars the fireman disappears on the curve out of sight so we put a man up on about the fifth or seventh car, either way there, and he will be able to see the fireman when they go into the cut, and then the tail end man and I are back to do the switching here at the switch by "B" to let the cars in to the main line.

Q Do you ever have a cut which is more than 15 cars that you take up there?

A Oh yes. I have had it where we had to put

two on top.

Q Yes?

A And then I was down below there until we worked down to where we could see and repeat our signals to each other.

THE CHAIRMAN: When the witness was speaking earlier about these men I did not know whether they were on the ground or on top or where they were. Now he says he puts two on top so I presume one of them before must have been on top.

MR. LEWIS: I thought I heard him say that.

THE CHAIRMAN: I do not think so.

BY MR. LEWIS:

Q When you had only 15 cars and you said the fireman went out of sight at the rock cut what did you do then? Where were your two brakemen?

A One of them was about five cars behind the engine.

Q On the ground?

A On top.

Q On top of the cars?

A On top of the cars.

Mr. Connor

Q And the other one?

A He is back at that switch at "B" with me to ride cars when I am pulling cars.

Q Is this a gravity yard?

A Very fast yard, runs west.

Q When you pull the pins to let the cars out he rides them?

A That is right.

Q You said you have to put this man -- we are still with only 15 cars for the moment -- five or six cars behind the engine so that he can see the fireman?

A Yes.

Q When he is on top of the fifth or sixth car could he not see the engineer around this curve?

A No.

Q Is there any way, or is there not, in which you could place the man so that the engineer could see him around that curve between the rock cut?

A Well, I would say no, there is not, because he could not stand on the side of that cut.

Q That is the cut which is to the south of that curve?

A That is right, and if he got up on top of it there is so much brush and trees he would be of no value up there either.

Q So this man is on top of a car five or six

Mr. Connor

cars from the engine and relays the signals to the fireman?

A That is right.

Q I asked you what happened when you had a cut of more than 15 cars, and you said you had to put two men on top?

A Yes, I have. If you put 25 cars out of there then you would have to have two men there.

Q The engine goes farther out along that curve between the cut?

A That is right.

Q Where would the first man be?

A He would keep walking back on the top of the cars.

HON. MR. MARTINEAU: Talk a little louder, please; I am missing half of what you are saying.

THE WITNESS: I thought I was speaking too loud.

MR. SINCLAIR: You are speaking too close to the microphone.

HON. MR. MARTINEAU: Speak louder but not so near the microphone.

BY MR. LEWIS:

Q If you have 25 cars you have two men on top, and I asked you where the first man would be and you said the first man would have to be walking back and forth on top of the cars.

A That is right.

Q To do what?

A To repeat signals.

Q To have the fireman in his view, and also the man behind him in his view.

A That is right.

Q When you pull up there, then you back down again, I assume, into either the C.P.R. main line or track No.1, wherever you are building your train.

A That is right.

Q When you back down through these rock cuts around that curve do you still give the signals on the fireman's side or do you switch over to the engineer's side?

A No, getting back where we can see him the head end man drops back to where we are working; he rides cars, too, and all signals given on the lefthand side.

Q That is the fireman's side.

A Yes.

Q Then, when you get up you are in the main line; you still go around that curve.

When you come up the straight of the main line do you still work on the fireman's side or do you get over to the engineer's side.

A No, go to the engineer's side wherever we can work on that side.

Q Have you ever tried to work any other way there?

A No, I never tried it any other way, only the most convenient way.

Mr. Connor

Q Is there anything else you had to comment on in regard to the Crowsnest yard?

A No.

Q Or does that cover it?

A Nothing else to say on that.

Q Now, Mr. Connor you have been a conductor a good many years. Have you ever had any instruction with regard to giving signals on the engineer's side from any one?

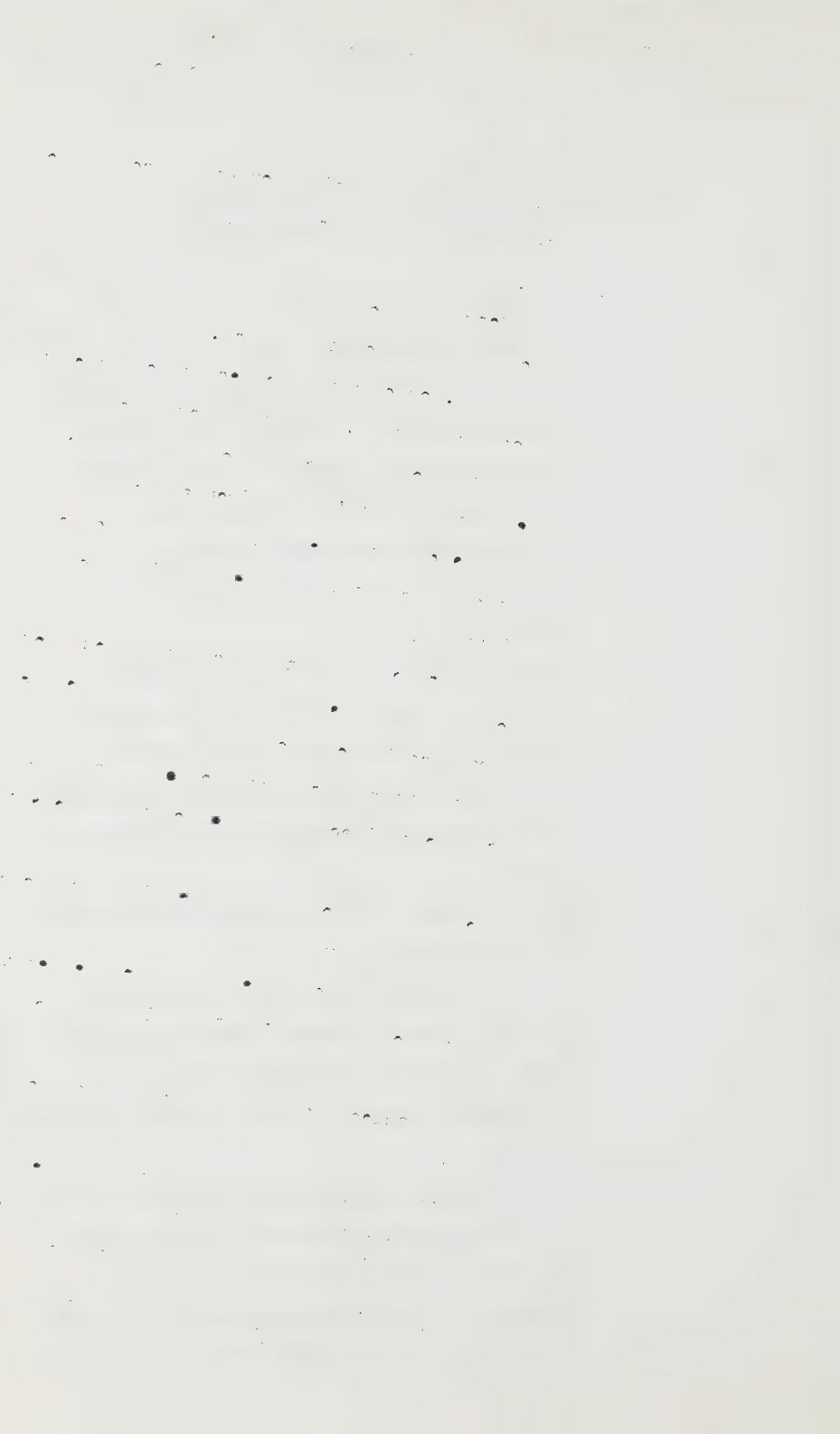
A No, nobody has ever said anything to me in regards to that. I use that in my own judgment.

Q What is your general practice in your work of giving signals? What is your general practice in your work in giving signals? As a general practice, do you give signals on the engineer's side or on the fireman's side?

A We give them on the engineer's side wherever it is practicable.

Q I think you told the Commission yesterday that you wished you could always give them on the engineer's side when operating in the Macleod yard? That is your objective, is it?

A What I meant by that, there have been nights up there in that yard with the wind blowing 65 to 70 miles an hour, and it creates a dust whirl up on that lead so bad it is hard to get a good clear signal to the fireman,



Mr. Connor

and your lamps are blowing out. If we could work on the other side -- we are in the shelter out of the wind, and so is the engineer, and we can get a much clearer signal to the engineer to do our work.

Q Why do you not do that?

A Because our work is all on the other side and we cannot do it; that is all. It is hard at 75 miles an hour to get a man up on the box car.

Q That takes me to the next question I was going to ask you, Mr. Connor. What is your opinion with regard to a man working on top of cars to relay signals?

A Well, it is not a safe move anytime, but sometimes you just cannot help it; that is what we are paid for. Then, there are those ice conditions, and other things. I slipped off the top of a box car once myself.

Q You said you slipped off a box car.

A I slipped off a box car one time myself; I could hardly walk for three or four days. I do not like to see men working at the top behind those diesels. You get up behind two of those diesels and the fumes are coming back so thick that you are sickened. It is hard for a man to stand behind and do the work up there.

Q Behind the diesels?

Mr. Connor

- A Yes. Sometimes it gives out a volume of smoke so thick I think it is not safe to have a man to stand up there and do the work.
- Q But you do have --
- A We do it, we have to do it a lot of the time.
- Q You do it a lot of the time.
- A I like to make the thing as safe as I can and as fast as I can but I do not like to see that man standing in the fumes behind the diesel.
- Q On the subdivisions where you work, Mr. Connor, do you do a lot of switching en route, or not so much?
- A Sometimes real bad; sometimes it is not too bad.
- Q On the average?
- A On the average there is quite a bit of work all the way along.
- Q I do not know whether I asked you yesterday -- I cannot remember -- this question. Are there any yard engines in any of the yards that you work at in your subdivisions?
- A Well, just Lethbridge and Alyth is the only places there are yard engines.
- Q At Crowsnest, Macleod, Coleman, any of those places?
- A We do our own switching.
- Q The road crew does the switching?
- A The road crew. Right now it is not too bad. They call out the road crew about twice or three times a week to clean out, as I was

Mr. Connor

saying, these coal tanks, stuff like that in the yards, asphalt; call the road crew out to switch these mines.

THE CHAIRMAN: Which mines?

BY MR. LEWIS:

Q Which mines?

A They do that for Bellview, Greenhill and Coleman.

Q You said they call the road crew out to switch these mines?

A Yes.

Q Do you mean to say the road crew?

A Pool crew.

Q Pool freight crew?

A That is right.

Q To switch these mines?

A That is right.

Q By that you mean the various mines around the Crowsnest area?

A That is right.

Q In effect, then the road crew does yard work in switching these mines. Is that right?

A Yes, at yards like Coleman yard and Greenhill and Bellview yard, and he goes to Burmis with a train of loads and brings back a train of empties and puts them in the Greenhill, pulls out Bellview and empty. He has special dumps to take over to Coleman for slack loading. Just routine in our business.

Q As you say, the road crew is called out to

switch the mines in the Crowsnest area?

A That is right.

Q Does it do this switching at each mine and is a sense like the yard crew, or does it actually pull trains from one place to another.

A It pulls trains from one place to another.

Q As well as switching especially in mines?

A Oh yes.

Q In your experience, Mr. Connor, of many years as a brakeman and as a conductor in that area, the Crowsnest and all that area, did you have many sorts of emergencies like breaks in two of the train or hot boxes or anything like that?

A Oh, we have the average hot box, not too often, and break in two. I have not broke in two for a long time, but I charge that up to the experience of the engineer, learning how to run one.

Q When you have, say, a hot box to set off do you come then into the same problems about signal passing and curves, or do you not, in switching these yards?

A Depends on where it is. Sometimes in a place like Sutton, out at Brocket and it is a regular set off we work on the fireman's side. If we have to set off down at some other place there we work on the engineer's side. It is a matter of routine, wherever it calls for. If we can see the engineer

Mr. Connor

we work on his side, and if we see the fireman we work on his side.

Q Now, Mr. Connor, what I think the Commission wants to know from you as an experienced conductor and brakeman is whether or not in your opinion from your experience you could do your work safely and efficiently without the fireman on the lefthand side of the engine?

A Well, that is a flat question. I will answer the best I can. I have never tried it, so I cannot hardly see where I can turn around and say that we could, but the way we work at the present time we work safely and we use that man an awful lot. I have never had to attend an inquest, never made out a death report killing anybody and I think with 37 years -- like to put in just ten more with a safe record.

Q In that regard what role do you think the fireman has played?

A Well, being back on the tail end one can never quite tell; but there is no doubt I do not charge it all up just to me for the safety.

Q You were on the head end of the train for some years before you went to the tail end, were you.

A Oh yes.

Q Drawing on that experience of some years back now, what part of the safety record in doing

the work would you, if any part, attribute to the contribution of the fireman as a member of that crew?

A Oh, very much, very much. I would say that I would have to start to learn to railroad all over again if they took him away.

MR. LEWIS: That concludes my questioning, Mr. Chairman.

BY MR. SINCLAIR:

Q Have you got those sketches that were filed,
Mr. Connor?

A Yes.

Q The first one was at Fort Macleod?

A Yes.

THE CHAIRMAN: What number was that?

MR. SINCLAIR: It was No. 238, Mr.

Chairman.

BY MR. SINCLAIR:

Q You have that, Mr. Connor?

A Yes.

Q Now, you quite often work between Lethbridge
and Crowsnest?

A Yes, sir.

Q And I think your evidence was that it was
quite often you filled out at Fort Macleod
when you were going west?

A That is right.

Q And on that subdivision, that is, between
Lethbridge and Crowsnest, would you say
you did a lot of switching en route as a
usual thing?

A Well, I switched Monarch on the trip
before I came down here.

THE CHAIRMAN: Will you speak up a
little?

THE WITNESS: I switched Monarch the
day before I came down here and set out at Macleod;
lifted some at Macleod; went to Bocket and

spotted eight for wheat loading; then we went and set out our empties at Coleman, 20 empties, and we picked up, I think it was, 21 loads there; that is routine.

BY MR. SINCLAIR:

Q You say that would be pretty normal?

A That is pretty normal.

Q You do about that much switching en route normally?

A Oh, no, there is lots of days we never do much switching.

Q Yes, I would think so, Mr. Connor. I have a report here --

THE CHAIRMAN: Mr. Connor, we are having difficulty up here hearing you. Would you stand back, towards the back of the box, and just face those windows, not quite so close to the microphone? I think the microphone will pick it up.

BY MR. SINCLAIR:

Q You are saying that on many trips you have hardly any switching, is that what you want the Commission to know?

A Yes.

Q Then, the trip you made reference to just before was a somewhat unusual trip in regard to the amount of switching done?

A Oh, yes, for me it was, but that work has to be done practically every day by some of the crew.

Q There is a way freight on this subdivision, isn't there?

A I just came off it a month ago. It makes one trip a week, runs up on Wednesday and back on Thursday.

THE CHAIRMAN: Well, what kind of train would the witness be on, what do you call that?

BY MR. SINCLAIR:

Q Your regular run from Lethbridge to Crowsnest would be on an extra, would it?

A Yes, sir.

Q An extra freight train?

THE CHAIRMAN: I presume that means it does what the way freight cannot handle; is that it?

MR. SINCLAIR: It might do whatever switching en route is assigned to it by the dispatcher.

BY MR. SINCLAIR:

Q On April 26, you were the conductor on Extra No. 8918 from Alyth to Lethbridge; you remember that trip?

A Is that the night the engine quit?

Q Yes?

A Yes, I remember that.

Q The only switching you did on that one was at Aldersyde?

A That is right.

Q The next trip was No. 70, of which I have record, on April 29, and on that trip, which was from Crowsnest to Lethbridge, the only place you did any switching en route was at Fort Macleod?

A That is right.

Q The next trip was May 2, you were on Extra No. 4064 west, Lethbridge to Crowsnest, and you did switching at Fort Macleod?

A That is right.

Q And also one car at Blairmore?

A A tank, is that right?

Q The next trip I have a record of was on No. 74, on May 2, and on that one -- that is really No. 980, isn't it, that is a symbol freight?

A That is right. That train does not do any switching, just makes a set-out at Macleod.

Q All you did was make one set-out at Macleod?

A That is right; that is all you ever do on that train unless there is something real perishable that has to move.

Q Now, on May 3, you were on Extra No. 8910, and on this trip you set out two and picked up two at Monarch. You got to Fort Macleod and you set off two that you picked up at Monarch. And Brocket -- this is the trip you were talking about?

A That is right.

Q You set off eight empties, and at Coleman you picked up fifteen loads?

A That is right.

Q Then, on May 4, you were on Train First 74, and the only work you did en route was at Fort Macleod?

A Yes.

Q Now, Mr. Connor, are you saying that every time you have to work at Fort Macleod signals are given to the fireman?

A Westward, yes.

Q Westward?

A Up the lead, there, on the west lead.

Q I am instructed on this trip that I am speaking to you about one of the officers observed the work and that on no occasion was the fireman used as signal passer?

A On the west end?

Q Yes, and I am further advised that you were not there, that you were down in the station and that the other men were doing the work?

A That is right; I said that yesterday. I often stay down there and get my bills and orders.

Q So, you do not know how these men are giving the signals, do you?

A Oh, just as quick as I can, I get up there and I do.

Q Are you going to swear to this Commission that this work at Fort Macleod, with three

men participating in the switching, cannot be organized so that all signals are passed to the engineman?

A No.

Q Now, looking at Exhibit No. 239, will you, Mr. Connor -- that is Coleman. Now, I do not know if this is the one with which I had a little difficulty -- yes, it is. Look at that sketch, and from your knowledge of what the situation is --

A Yes.

Q The curves are a bit flatter than they are shown on this sketch in coming off Tracks Nos. 7, 8 and 9 over into the main line?

A Oh, yes, these sketches are not exact like that is, but for a midget plan, why it is pretty good.

Q I am not complaining about the man who drafted it, I am just suggesting to you that maybe because of the paper, and everything else, wanting to get it all in a certain place, it had to be foreshortened?

A Yes.

Q These curves are flattened?

A Yes.

Q You said you had no trouble when you were switching Track No. 9, but your trouble arose when you were switching Track No. 8?

A Yes.

Q And that switching Track No. 8 you said it

was your practice to give signals to the fireman rather than the engineman?

A I believe I made the statement that if there were no cars in Track No. 9 we would give them to the engineer.

Q If there were no cars in No. 9, you would give them to the engineer?

A Yes, the whole thing is that when you pull this track, we do this for an accommodation for the company, we pull those mine loads, whatever there is, back there down a piece and leave room to drop more down on the tail end. If we leave them back up there, then they have to have five or six men bring those cars down and they have quite a time getting them started, and then it takes a lot of arranging of them, so we do that as an accommodation for the company.

Q For the mine?

A Yes.

Q You are helping the mine out by the way you switch there; they won't have to do so much work?

A It has been routine; we always do that, pull the loads down clear and then they can drop their loads down on top of them.

THE CHAIRMAN: You may understand this, Mr. Sinclair, but I do not.

MR. SINCLAIR: What I think the witness has said is that the moves he has made with regard

to Coleman, with regard to the placing of these cars on Track No. 9, and on all this trackage in here, is to assist the coal mine so they won't have to move cars any farther than they absolutely have to. Is that right?

THE WITNESS: That is right.

MR. LEWIS: Did the witness say all the tracks or No. 9?

MR. SINCLAIR: Nos. 6, 7, 8 and 9, I took it to mean.

THE WITNESS: We do it on any track that we may pull. We drag the loads down clear, and then they can be dropping their loads down on to them, which I think is proper at any time.

BY MR. SINCLAIR:

Q Then, you were saying that if there were cars on Track No. 9 you have difficulty in giving signals direct to the engineman when switching Track No. 8?

A That is right.

Q If the cars that you were handling were going to be --

A On the straight?

Q -- down around where 8 is on this plan, that is, the west end of Track No. 8?

A That is right.

Q And if they were to the east end, you would not have difficulty?

A No, if they were away out to the east end.

Q Is that right, if they were towards the



east end?

A Yes, if they were down on the straight, why certainly.

Q Now, if there were cars on Track No. 9, isn't it possible for you to place one of your men on the cars on Track 9, another man at the point of the curve where the curve goes off, and one man at the rear and relay signals that way?

A If that cut we couple the cars into should happen to be back near that big pile of coke, that goes 20 feet in the air, the only way the brakeman can get the engineer would be to get down off the car and walk down and tell him.

Q I am suggesting to you -- follow me, if you do not mind -- you put one man, one of your men, on top of the cars on Track No. 9 that are standing there?

A In No. 9?

Q Yes?

A Yes, I can put a man over there.

Q You put a man down near the engine and another man on the point?

A Yes.

Q And you could relay signals that way?

A Yes.

THE CHAIRMAN: Mr. Connor, if you would just wait for the question before you make an answer -- the reporter cannot get it down and

when we come to read this afterwards it will be absolutely unintelligible. Just wait for the questions and then make your answers.

MR. SINCLAIR: I think his answer to my question was yes.

THE CHAIRMAN: I understand it now, but I am going to be confused when I come to read it.

BY MR. SINCLAIR:

Q The only difficulty you had, as you have explained in evidence, was when you took cars off 7 or 8 or any of those tracks, and pulled them up to shove them back into Tracks 2 and 3, correct?

A That is right.

Q You told my friend this morning that you made cuts of ten cars when you did that?

A That is right.

Q And with three men working on the ground, Mr. Connor, are you telling this Commission that you cannot place those men at all times to shove ten cars where signals cannot be relayed directly to the engineman?

A Well, I never tried it, to tell you the truth. I guess maybe a man who tried it, he could do it, but it would be an awful slow job of operating a lot of the time.

Q Before you come to that. You went to this Green Hill mine?

A That is before it was shut down.

Q It is shut down?

A They have pulled the tools out but there was 25 loads there when I came down and I said to my tail-end man, "I thought they closed that mine?" He said, "They pulled the tools out from underground." But I believe they are using the tippie in strip mining.

Q That is the mine is in process of being closed?

A The mine is closed definitely, but that does not say anything about the tippie. The McGillivray is all closed but they are still using the tippie.

Q They are using up whatever coal they have above ground?

A They are strip mining. There are trucks by the thousands up there hauling coal.

Q At Green Hill?

A No, at McGillivray.

Q I am talking about Green Hill.

A I am not sure that Green Hill is working either.

Q You are not sure whether Green Hill is working?

A That is the tippie.

Q You are not sure whether the tippie is working?

A No. It was closed only two or three days before I left and when I came down the last trip there was 25 loads setting down there and I said to the tail-end man, "I thought they closed that mine down." He said, "They did." I said, "There is between 20 or 25 loads down there, they must be still using the tippie for strip mining."

Q In any event I am told that people have observed the movement you have described in this court room and it has been done with all the signals being relayed to the engineman by properly positioning the ground crew. Have you ever done it that way?

A No, never did it.

Q You have never done it that way?

A No.

Q You are not going to say that if you thought about it you could place your men so that it could be done?

A Oh, yes.

Q And give the signals direct; is that not right?

A Yes, but it is an awful way to do rail-roading.

Q You think it would be an awful way to

do railroading?

A You would have to teach me all over again as to the proper place to place the crew. I can take that into consideration when I am back again. I will make it a point to make sure.

Q You told the Commission that the difficulty was with two men; with three men you said it could be done quite easily by giving the signals direct?

A Yes.

Q You have never tried with two men, giving the signals direct?

A No.

Q Exhibit 240 is the sketch of Crowsnest. From the time you clear the switch on the east end of the main line, from there to the height of gravity into the rock cut, how many car lengths is it?

A It will take 17 cars and two diesels.

BY THE CHAIRMAN:

Q Is that from B to the rock cut?

A From B to the rock cut.

BY MR. SINCLAIR:

Q Seventeen car lengths and two diesels?

A Yes.

Q The right-of-way --

A The highway is on top.

Q The right-of-way, I said; you can go along to the south between the main

line and the extension of Track No. 1, which might be termed a switching tail, although I don't know what it is.

A That is a tail track for switching a load of 10 cars.

Q There is a switching tail there for 10 cars, and then there are 17 cars that you can use on the curve, plus the engine, before you get to the rock cut?

A That is right.

Q A man could position himself, could he not, between the switching tail and the main line when your train goes out there?

A No.

Q Why not?

A Because you go down right over the bank. You couldn't see him.

Q What is between the switching tail and the main line?

A Gravity.

Q Is there not flat ground between the switching tail, which is an extension of Track No. 1 easterly, and the main line, just around where that A is?

A Yes, sir.

Q A man could easily stand there?

A Yes.

Q And he could walk there, could he not?

A He would only have about 10 cars.

Q Just a minute, wait; he can walk, can

he not, along the right-of-way to the east?

A No.

Q Why?

A Because he would go down over the bank there about 20 feet.

Q Where does that bank start?

A Right at the end of the tail track.

Q He could stand a few feet east of that, you say?

A He might be able to stand a few feet east of that, but not very far. It is all bush and creek down in there.

Q He can stand a few feet east of where the tail track ends. Are you suggesting to this Commission that if you positioned one of these men there and one man on the south side, that is the engineman's side, on a car --

THE CHAIRMAN: Where is your second man?

MR. SINCLAIR: Near the engine on a car.

BY MR. SINCLAIR:

Q There would be one man on the point of the triangle, and one man back at the switch on the right; do you suggest you cannot relay signals?

A You can relay them perhaps. I have never tried it, but who is going to ride

the cars when I pull the pin on them?

I have nobody left to help me.

Q You are going to pull the pin --

A It is not logical.

Q You cannot tie down cuts of 10 cars
and then switch up against them?

A I am not taking a chance of smashing
something up, no.

Q Don't you ever tie down cars at the
west end of this yard, what I am calling
the west? Don't you ever switch up
against them?

A No, sir, not for a distance of over
seven or eight cars because you are
going so fast it is liable to break a
drawhead. I wouldn't, not under any
consideration.

Q You say you have to use the fireman,
is that right?

A We do use the fireman. If you come out
of there with two diesels, unless you
walk out to the side of the engine to
give the engineman the signal.

Q I am saying that if you are going to
kick cars down into this yard, and you
do kick them down?

A Yes.

Q You are letting them run free in this
yard?

A There is somebody riding them all the
time.

Q You are not pushing or shoving cars with the engine attached?

A No.

Q If you did that you would not have to ride them, would you?

A No.

Q How many tracks do you switch in there to make up a train at Crowsnest?

A Oh, that would be an awful hard question to answer.

Q How many?

A All over the yard. Well, could I speak to Mr. Lewis, or may I?

THE CHAIRMAN: No, just answer the question from your own knowledge.

THE WITNESS: Four or five.

BY MR. SINCLAIR:

Q How big a cut do you generally handle?

A Well, all the way from 10 to 35 cars.

Q Thirty-five cars may be too big a cut for this yard?

A I have made my own arrangement on that deal which I don't suppose would be proper. I have told the engineer about 35 cars and he has the air on them, and especially when a blizzard is blowing I tell him I can open the angle cock and I tell him that the minute he sees the air going, he can shut off because I am over the switch. I will

leave it open until I get the switch lined and when I close the angle cock he can pick up the slack.

Q What you are saying is that you are using the signal pipe?

A No, just the straight train line.

Q You are using the train line instead of using hand signals?

A I have did that just for my own convenience.

Q That is direct to the engineman by you and the other two men are not involved in the move at all?

A Oh, no, they are with me but that is a signal of my own.

THE CHAIRMAN: I do not know whether it is necessary for us to follow that, but I am sure I am not absolutely clear as to just what he is doing.

MR. SINCLAIR: I think what the witness is saying is that instead of using hand signals to the engineman he rides or stands near the place he wishes the train to stop.

THE CHAIRMAN: In the yard?

MR. SINCLAIR: In the yard. He opens the angle cock and in that way he puts the brakes on the train and that is shown on the engineman's gauge. He has a deal with the engineman that when he closes the angle

cock that means he is lined up and the engineer can shove back.

THE WITNESS: That is right. We often do that, especially on the main line.

MR. SINCLAIR: Then he does not use the rest of his crew at all.

THE CHAIRMAN: I admit I am still in the infant class. What you have just described as to what the witness does, is that at a time when the train is standing or moving?

MR. SINCLAIR: The train is moving out to the east with 35 cars.

THE CHAIRMAN: I thought we were talking about backing to the west into the yard.

MR. SINCLAIR: To make the move as I understand he has described it, he pulled out to the east with 35 cars, which would be toward the right-hand side of this sketch.

THE CHAIRMAN: I take it that the tail end of the last car would be east of B?

THE WITNESS: That is correct.

MR. SINCLAIR: That is right. Rather than use hand signals to tell the engineman to stop, or to give signals to the fireman, Mr. Connor himself would open the angle cock, which is on the last car. That would stop the train. Then he has an arrangement made in advance with the engineman that he, Mr. Connor, will line the route that they are going to take, to back in we will say to

No. 1, and when Mr. Connor closes that angle cock that will show on the engine and then the engineman will start to push.

THE CHAIRMAN: Without any signals from anybody?

MR. SINCLAIR: That is right.

THE CHAIRMAN: Would you ask the witness what he was speaking about when he was describing backing up into this yard by giving signals to the fireman on the left-hand side?

BY MR. SINCLAIR:

Q Your evidence in answer to my friend Mr. Lewis' question was that in making this move you would put one man up on top if you had 15 or so cars, but when you had 25 cars you would put two men up on top, one man at the point of the movement and one six cars back or so from the engine and he would walk back and forth and in that way you would give the signals to the engineman?

A Yes; to the fireman on the fireman's side.

Q What do you mean, to the fireman or to the engineman?

A Well, to the fireman. I thought you were addressing him as an engineman too.

Q To the fireman. Then you told us you have an arrangement whereby by using the

angle cock you do not need to give signals. Why do you go to the trouble of putting a man up on top?

A Well, because I have to have him on top when I am switching. I cannot switch without a man there to stop them.

Q What you are talking about is if you want to kick cars loose?

A That is right.

Q You use a man up on top?

A Or on the side of the train.

Q But if you are just going to shove or pull and use the angle cock, you do not use signals at all?

A No. I may make that a little clearer. Sometimes we have our train all built up and the next pull out of the yard would be maybe 35 cars of a straight pull.

THE CHAIRMAN: We cannot hear you.

THE WITNESS: Sometimes we get our train built on the main line itself and we are down past the station. There is room for about 40 cars there. I will say to the engineer, "I got 35 cars of a pull now; we have the air on and it is going to be awfully hard to get signals to you." The weather conditions might be bad. When he pulls over the switch at B I will say, "I will open the angle cock and as soon as you see your gauge.

going down you know I am over that switch. I will leave that angle cock on and your gauge will be down until such time as I have the switch all lined. When I close the angle cock then your air gauge will come back up and then you will know I am all right to back up and you can back down." By the time he gets backed down around the cut we can all give signals.

It is not the proper way to railroad, I will admit that, but I do that to make a quick move or to save a lot of time.

BY MR. SINCLAIR:

Q It is dangerous, is it not?

A No, nothing dangerous about it. At least I never had any trouble with it.

THE CHAIRMAN: Well then, Mr. Sinclair, leaving that out of it, do you understand the witness to say that when hand signals are given they can or cannot be given to the engineer when a back-up movement is made?

MR. SINCLAIR: I understood him to say they could not in the way he positions his crew, but that he hadn't tried it. He thought it could likely be done with shorter cuts.

BY MR. SINCLAIR:

Q Is that right?

A That is right.

V. T. Connor

F-1
Price

THE CHAIRMAN: Perhaps we should have a break here.

--- Recess.

--- On resuming.

BY MR. SINCLAIR:

Q Now then, Mr. Connor, yesterday you made reference to the bulletin on the Lethbridge division of April 1, 1957 and item No. 4 under the heading "Restricted Clearances". You will remember that Mr. Lewis read you that?

A Yes.

Q And as I understood your evidence you took that to mean that it prevented brakemen from working between a train and grain elevators?

A Yes, for our own safety.

Q Have you ever been on an elevator track where there is restricted overhead clearance?

A No.

Q When you spot cars on elevator tracks do you tie them down?

A Yes, sir.

Q Is there always a man on top to tie down?

A That is right.

Q If you put another man up on top could the signals not be given directly to the engineman?

A No, to the engineer, I don't believe it could be done.

- Q Why, Mr. Connor, if you put one on the first car behind the engine, do you think he could not see his mate and the engineman see him?
- A He might, but I do not think that would be a very safe way of operating.
- Q That is why you say that. You think he could see him, though. You would say the engineman could see the man on the first car behind in the centre of a car on a road switcher?
- A On a road switcher?
- Q Yes?
- A Oh, yes, he could see him. I do not think it would be safe to work that way.
- Q Why would it not be safe?
- A Because of the spouts hanging down there; the engineer is liable to get his head taken off. I see lots of times that gates of stockyards were hanging out.
- Q Just deal with elevators first. You are saying the engineman can't put his head out far enough on the elevator track to see the man because he could be hit by a spout. Is that right?
- A Never tried it.
- Q Is that why you are saying you are afraid of the engineman being hit by the spout?
- Is that right?
- A Well --

Q Is that right?

A Yes, it could be.

Q Is that the reason why you said it was not safe?

A Yes.

Q Now, a restricted clearance, Mr. Connor, you know is one that is less than six feet from the closest rail?

A Less than six feet?

Q Yes?

A No, I did not know that.

Q Being over four feet in height?

A No, I did not know that.

Q You did not know that?

A No.

Q Are you suggesting that grain elevators are closer than six feet to the gauge side of the closest rail?

A To the rail?

Q Yes?

A No, not to the rail; I would not say that.

Q They are six feet or more, are they not?

A I believe they would be, although I never measured them.

Q Well, you are not going to suggest to this Commission that you cannot walk on the ground between an elevator and a car, are you?

A The rail lays six feet, and there must be two feet of the box car past the rail.

THE CHAIRMAN: Witness, just answer the question.

BY MR. SINCLAIR:

Q Are you suggesting to this Commission that a man can't walk between a box car and an elevator?

A Oh, no, I don't say that; he could.

Q And he can walk very safely, can he not?

A Well, there is piles of wheat and obstruction, grain and doors laying around or platforms left laying down. You could walk through there, certainly; it is made for that.

Q It is made for that. Now, these stock loading platforms you spoke of --

A Yes.

Q A man can stand on the platform?

A Yes.

Q It is an open platform?

A That is right.

Q And he could be seen there by the engineman?

A Yes.

Q And he could be used as a signal passer from that platform direct to the engineman, the man who is on the ground, could he not?

A Yes, do that lots, load lots of cars. I have loaded lots of stuff.

Q Even if you are switching elevators with stock-loading platforms, say you are east-bound, the engineman is against the grain houses, the grain elevators, there is a man

on the ground back where the elevators are and another man on the stock-loading platform, they could be used to relay signals in that way, and it is done that way, is it not, Mr. Connor?

A No.

Q You have never done it that way?

A Never in my life.

Q Have you ever tried to do it that way?

A No.

Q You are not saying it cannot be done?

A I have never tried it. Any time I was switching elevator tracks I worked on the opposite side of the elevators as long as I worked on the railroad.

THE CHAIRMAN: You are getting us on the opposite side of you when you turn.

THE WITNESS: I have worked on the opposite side as long as I have ever started on the railroad, just taught to work that side.

BY MR. SINCLAIR:

Q Because it is easy?

A Well, you can see the grain spout by the lamp back of the car, yes.

Q There is just one little point that I was rather interested in and that is these diesel fumes. If there is a side wind there is no problem at all, is there?

A No.

Q And if there is a wind back from the engine

along the cars, if you are on the first car, the fumes go over your head, but if you are farther back you are in them; is that not so?

A No.

Q Have you tried it?

A Yes, sir.

Q You do not think that the fumes go over your head when you are closer to where the stack is?

A You are working there at the elevators and the fumes are swirling around all over clean to the ground and back, and there are those currents of air going through these big elevators.

Q I thought you were talking about there being more fumes when you are up on top?

A There is.

Q I am suggesting to you that if there is a side wind there is no problem, and you agreed there is no problem. Then, when you have a following wind --

A When it is blowing away from you that is fine, but around the elevators it gets swirling --

Q When there is a following wind, are you suggesting there are more fumes on the first car behind the engine than there would be two or three cars farther back, or five cars farther back?

A When there is a wind following you, you would get none of them.

Q You are heading into the wind?

A Yes. If you are heading into the wind it comes right directly back on you.

Q You would get just as much on the fifth car as on the first car?

A I imagine you would.

Q Do you know?

A Yes. I have travelled caboose hop and I have travelled as many as three or four cars. We shut every window in the caboose and every door to keep the fumes out of there because they are quite sickening.

Q They are coming back to you?

A Yes.

Q And the caboose hop, that is no cars?

A No cars, only your caboose, very sickening.

Q Really, Mr. Connor, you are not going to seriously suggest to the Commission that you have to have the fireman as a signal passer because of the diesel fumes coming down and making it difficult for a man up on the car next to the engine in a position to see the engineer?

A No. What gives me that idea is the speeder car, and our safety man told us about a sectionman riding the speeder and they were going along at about the same rate as the wind, and apparently they did not know just

why it happened until they found out that a man had been overcome with carbon monoxide just off the speeder, and dropped him off in the ditch.

Q. That is what gave you the idea?

A. That is what gave me the idea if this little speeder could knock a man out I do not think it would take very much from two big diesels to do it.

BY MR. LEWIS:

Q. Mr. Connor, you agreed with Mr. Sinclair that a man could walk between the grain elevator and the box car?

A. You can walk in there.

Q. Would that be the case if the elevator platform was down rather than up?

A. No.

Q. In your experience, is the elevator platform down or up usually?

A. You will find more down than you will up.

Q. Then, with regard to spotting elevators, I did not quite follow this, Mr. Connor. Mr. Sinclair placed a man on the first car. That would be the car you were spotting, would it?

A. Well, I think what Mr. Sinclair meant was me back four or five cars spotting, and put a man up on top next to the engineer, that he could repeat from the engineer back to me.

Q. Or rather from you to the engineer?

A Yes.

Q If you had four or five cars spotting in that situation, you put a man on top of the fifth car, the one you were spotting, and one on the car next to the engineer, what would you do?

A I spot my car. There would be one man on the tail end of it to tie the hand brake.

BY THE CHAIRMAN:

Q On top of the car?

A Yes.

BY MR. LEWIS:

Q Before you go on, Mr. Connor, you tie this hand brake. Where does this man stand?

A This man stands on the platform at the end of the car, and if it is an Ajax brake he winds it up this way.

Q Winds up the wheel?

A Yes, and if it is a Staff brake, got a Staff like this, with a wheel on top which he will use this way.

Q Pushing back and forth or turning?

A You turn it to the right to put it on and to the left to release it.

Q He would be on that platform at the back of the car?

A The back end.

Q The back end?

BY THE CHAIRMAN:

Q Which end of the car?

A Might be either end, depends. Only one

G-2

brake on a box car and it could be on either end.

BY MR. LEWIS:

Q At either end?

A Yes.

Q He would be at the end of the car doing that?

A Yes.

Q When he has that job to do is he used to pass signals?

A No; never use him for anything else.

Q When he is on that car to tie down that brake, he is on that platform at the end of the car to tie down the brake, and then you are left with yourself and the other brakeman.

A That is right.

Q In the example Mr. Sinclair gave you, I just could not quite follow you. It probably was my fault. You were to put your other brakeman on top of the car behind the engine; is that right?

A Yes.

Q Where would you be?

A I would be on the side spotting it.

Q On the ground spotting it?

A Yes.

Q On which side?

A On the opposite side of the elevators.

Q Side opposite to the elevator?

A Yes.

Q In the case I am asking about the engineer is next to the elevator?

A That is right.

Q So it would be on the fireman's side. You would be on the ground. Let me go over that again. You would have one of your brakemen on the platform at the end of the car that you are spotting to tie the brake down?

A Yes.

Q The other brakeman on the top of the first car behind the engine?

A Yes.

Q You would be on the ground opposite the fireman's side spotting the car?

A Yes.

THE CHAIRMAN: How close to the train?

BY MR. LEWIS:

Q How close to the train on the fireman's side would you be?

A Oh, I would be 25 feet away from the train to the side, where you can look out over the top of the box car where the spout comes out of the elevator and you spot your car opposite that.

THE CHAIRMAN: Opposite what car?

BY MR. LEWIS:

Q You would be opposite which car, opposite the car you were spotting?

A Opposite the car which I was spotting.

Q Which would normally be the lead car or the last car behind the engine?

A It would depend on which way the gravity of the yard ran. If it runs -- I was going north and the yard runs south I would spot the other car so he could pinch them down; if it ran north I would spot the first car next to the engine so he could run that way; depends on which way the cars will run in those yards.

BY THE CHAIRMAN:

Q May I ask a question. If the witness spots the car next to the engine I assume that means that he has spotted the car and he is going to leave it there?

A That is right.

Q Then he would have to leave all the other four cars as well?

A That is right.

BY MR. LEWIS:

Q They would stay just where they are?

A They would be right behind the car or ahead of the car that I spotted at the elevator.

Q In other words, if I understand you correctly -- I have never seen this done -- you spot one of the cars and when you have done that the five cars are spotted?

A You have four cars. Here is your engine --

THE CHAIRMAN: You just answer the question as put.

BY MR. LEWIS:

Q Suppose we take four cars because I think

you told us yesterday that every elevator holds four cars opposite --

A On the average you can spot four cars to each elevator.

Q Suppose then we spot the four cars to an elevator. Is this what you mean, that you only have to watch the spout and spot one at it and then the other three remain where they are attached to each other and they are automatically spotted, as it were, in that place?

A That is right.

Q As a matter of fact, you spot only one car and the elevator people will push, when they are through with that one, it out of the way, and push the next one over to the door; is that not right?

A That is right.

Q When you are gone they load that one and may use something to pull that away and pull one of the other cars over to the door?

A That is right.

Q So you only spot one of the four cars?

A That is right.

Q You say you only spot the last one or the first one next to the engine depending on the gravity --

A Of the yard.

Mr. Connor

THE CHAIRMAN: In a case where he spots the one right next to the engine, I assume that he, being on the ground using the fireman to give signals directly to the fireman, does not use either of the two brakeman?

BY MR. LEWIS:

Q Is that right?

A Yes.

Q If you are spotting the car next to the engine, you are on the ground next to the fireman or 20 feet away, and you give the signals direct to the fireman, so you do not use another member of your crew to relay it to the fireman?

A No, just to tie the hand brake on; that is all the one man does.

THE CHAIRMAN: Do you want to ask him why he could not give a signal to a man on top of the car next to the engine, who would then give a signal direct to the engineer?

MR. LEWIS: I would be glad to ask him that.

BY MR. LEWIS:

Q In that case, when you are spotting the first car behind the engine, Mr. Connor, you are on the ground some 20 or 25 feet away from the engine?

A That is right.

Q On the fireman's side?

A Yes.

Mr. Connor

Q You have one of your men on the platform and let us assume for the moment the brakeman in this case is at the end farthest away from the engine, you follow me?

A Yes.

THE CHAIRMAN: The fourth car?

BY MR. LEWIS:

Q No, we are spotting the first car. You are going to tie down the fourth car?

A Yes.

Q The Chairman would like to know why you cannot put your other brakeman on top of the first car to take a signal from you and relay it to the engineer. Could you do it that way?

A Yes, on a short move like that. Maybe you would not even have to get off the engine in one spot like that. If I put him up there, however, I have no man to bleed cars off while I am spotting or help me cut air hoses, pulling pins. I would be back having to do all those cars if I put in a lot of cars. If I had five cars to shove in to a spot in an elevator, I could do it myself. I would not need anybody.

Q You say you have a lot of cars --

THE CHAIRMAN: The witness said normally it was four cars.

MR. LEWIS: That is what I was coming to.

BY MR. LEWIS:

Q You told us that four was about the average

Mr. Connor

number of cars you would put in front of one elevator?

A Yes.

Q Now, you are talking about lots of cars and I think I know what you mean, Mr. Connor but would you just explain that. How would you have lots of cars if you spot only four cars in front of one elevator?

A Well, there are 12 elevators at Vulcan, and each one wants four cars, and there are 10 at Barons.

THE CHAIRMAN: Ten what?

THE WITNESS: Elevators at Barons, and they^{are}/all about what you would call a standard distance from the railroad. I do not know exactly how many feet it is, but when you come down you spot four to this elevator and you put the cars --

BY MR. LEWIS:

Q May I interrupt you, Mr. Connor. Take Vulcan for the moment. You say there are 12 -- I am sorry to interrupt you but it might help a little -- you say there are 12 elevators at Vulcan. You would have to switch?

A Yes.

Q In that case do you take in, let us say, 48 cars on to that elevator track?

A I have gone in there with 50 and spotted everyone.

Q You take in 50 cars to spot at the 12 elevators?

A Yes.

Mr. Connor

Q What do you do, do you back in with them on to the elevator track?

A Yes, get your loads out and put your empties in.

Q Is this what you mean, when you come in with these 48 or 50 cars -- if this is improperly put I will withdraw it -- when you come in with 48 or 50 cars, you are suggesting you cannot afford to have this man on top of a car relaying signals because you need him to bleed off the air, to turn and line switches where they are needed and to do other things that need to be done?

A There would be no switches at that point on spotting, but that is a long way up there, 48 cars, and sometimes I have to have him on the ground relaying signals from me up to the fireman, in weather conditions.

Q When you are spotting lots of cars, say 45, 46, 47 and 48 cars of a 48-car train, you will be 48 cars away from the engine?

A That is right.

Q And what you are saying is that you need another man between you and the fireman, working on the fireman's side --

A Lots of times I have had to have --

Q -- to relay the signals, even to the fireman?

A Yes.

Q Therefore, you are suggesting in that case you cannot have a man on top of the car next

to the engine to relay signals to the engineer, is that right?

A That is right; that man belongs on the ground where I can use him.

THE CHAIRMAN: Well, why does the man have to stand all the time on the platform on the last 48 car? Why can't he be used to come and tie down a car or something like that when it is spotted?

BY MR. LEWIS:

Q The man who was tying down the forty-eighth car, what happens after he has tied it down, what does he do?

THE CHAIRMAN: No, before he ties it down, does he have to be there all the time and really out of the team?

THE WITNESS: He don't; he ties the tail end of the cars I have spotted at the far end, then he goes up over the top and he gets a brake on the next four. I may have to pull him up a car length or half a car length, it depends, but the majority of them is four cars; he will get on that brake and as soon as ^I spot the car he will tie the hand brake. Then, he will go over the top, and I will pull the pin.

BY MR. LEWIS:

Q Who pulls the pin?

A I do. Then, when I pull the pin, he goes over the top and I wait until he gets over where I am cutting, and he will get another

Mr. Connor

brake. As soon as I pull it and spot the next one, then he will tie the brake on that.

THE CHAIRMAN: The question I am asking is why the witness, the conductor and one brakeman, cannot handle the spotting of cars 45 to 48, and in the spotting of those cars employ the two of them to pass signals to the other brakeman farther up the line from him to the engineer. Would you ask him that, and then proceed gradually to the next four cars and the next four cars.

BY MR. LEWIS:

Q Did you follow that?

A Yes, I did. Perhaps with our weather conditions, he would not be able to see me.

Q Who wouldn't?

A The brakeman on top. I am back a very long ways and in storms that I have seen, you could not come anywhere near seeing him and then seeing the engineer and relaying to the engineer. He would have to get down off the top of the train and come back half way to where he could repeat signals from me to the engineer.

BY THE CHAIRMAN:

Q You mean that you, at the tail end of the train, in certain weather conditions, could not be seen by the fireman?

A No.

Q Well then he equally could not be seen by

Mr. Connor

the engineer, another man could not be seen by the engineer, so it really means under those conditions you would have to try to spot less than 48 cars?

A Yes.

Q Even using the fireman.

A I would have to relay them to the fireman.

Q No, you are not getting my point. In bad weather you would really have to try to handle less than 48 cars, even giving your signals to the fireman?

A Yes, I would.

THE CHAIRMAN: I am just trying to understand it. Perhaps I have not elucidated it very much.

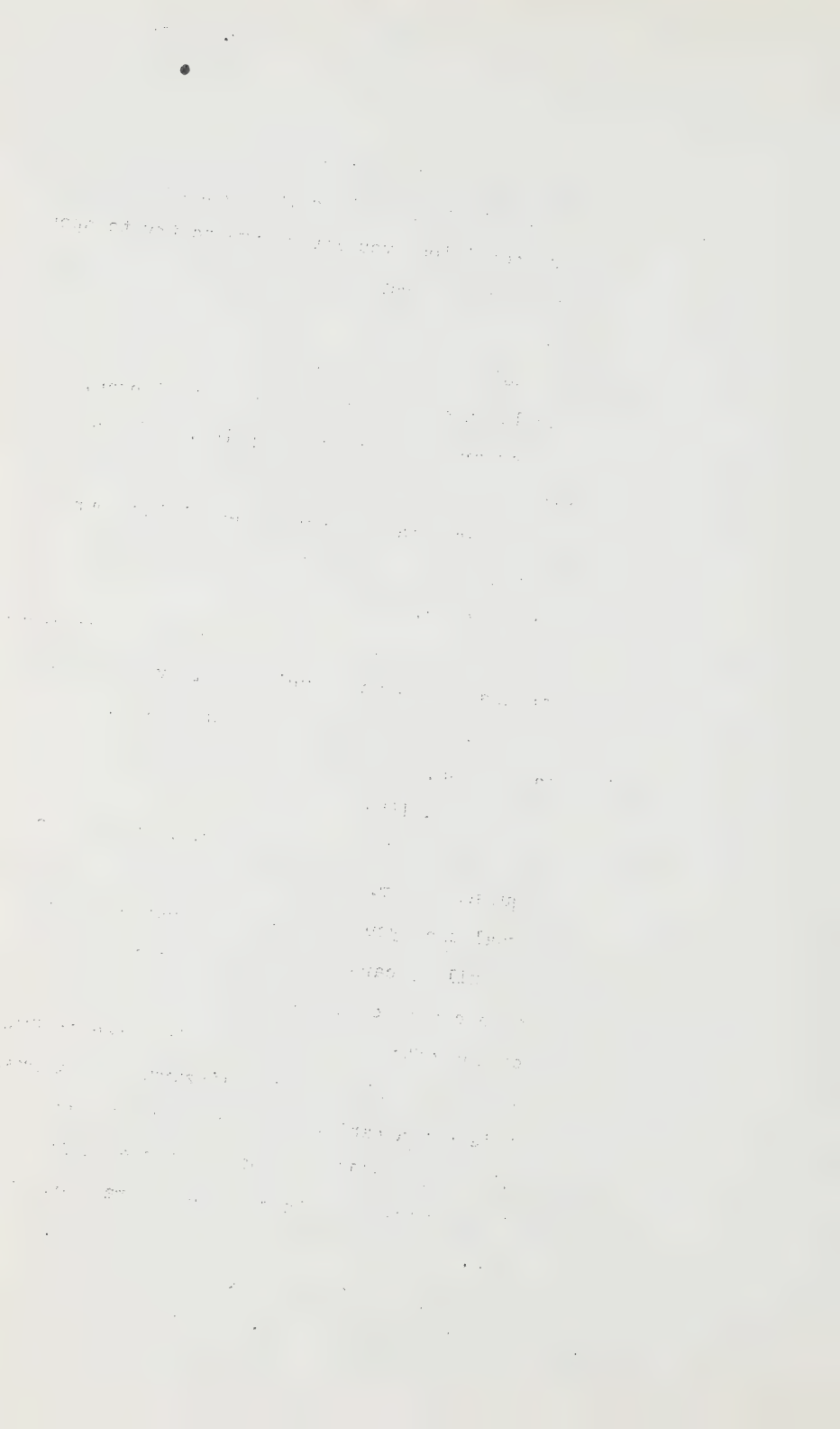
MR. LEWIS: I think it has helped, sir, if I may say so.

BY MR. LEWIS:

Q You were telling Mr. Sinclair, in answer to a question, Mr. Connor of a certain prearranged signal that you have with the engineer when you pull 35 cars, by opening and closing the angle cock; do you remember that?

A Not too often. I have done it three or four times in my life in bad blizzards and storms. It is not a habit. It is not a good way to, railroad, I will say that, but then a lot of times you do things to get a train out of town.

Q It is very important that the record get exactly what you mean. May I, with your



permission, Mr. Chairman, say to you that your answer to Mr. Sinclair did not suggest any qualification of bad weather or storms. You seemed to suggest that when you pulled as long a train, as long a drag as 35 cars, you made that kind of arrangement with the engineer because of the terrain at Crowsnest?

A That is right.

Q Do you do it every time or most of the time you pull 35 cars or is it --

A No.

Q Just wait a moment, please, is it limited to bad weather?

A It is limited to bad weather.

THE CHAIRMAN: The witness did not say that before.

MR. LEWIS: No, he did not, sir, and that is why I wanted to make it clear.

BY MR. LEWIS:

Q Is it, in your experience, in fact limited to bad weather?

A Yes.

Q Do you or do you not know whether doing that or using the air hose for signalling in that way, is or is it not, against operating rules?

A It is against the rules.

THE CHAIRMAN: It is against the rules.

BY MR. LEWIS:

Q It is against the rules?

A It might pull a draw bar out, and I would get disciplined for it.

Q You remember Mr. Sinclair asking you --
I do not remember his exact words --
whether it was a dangerous practice and
you did not agree with him. That is what
Mr. Sinclair had in mind, it was dangerous for
that reason?

A Yes, it is.

Q Isn't that right?

A Yes, it is. I said no because I have never
got in any trouble doing it.

Q I hope you do not get in any trouble if you
do it again?

A I hope I do not have to get in that kind of
weather.

Q Would you look at Exhibit 240, Mr. Connor.
Perhaps I did not hear all you said, but
I want to take you to the signal passing
which Mr. Sinclair suggested to you. He
suggested to you that with a shorter cut
-- what would that be, about 15 cars?

A Yes.

Q You are not inside the rock cut, you are on
this side of the rock cut; is that what you
understood?

A Yes.

Q He suggested to you that you put a man
east of the switch tail -- it would really
be south east to the right on the sketch,

Mr. Connor

to the right of this switch tail --

THE CHAIRMAN: Supposing you disregard the accuracy of the meteorological sign at the top and call the top of the plan north. I think that is what we have been doing.

BY MR. LEWIS:

Q It was suggested to you you put a man on the ground somewhere east of that tail and you said it would only go if you end east of the tail because of some drop or something, is that right?

A That is right.

Q He suggested to you you put a man there and that then you put another man on top of the car next -- I am going to use the words, next to the locomotive; do you remember that? He said next to the engine, you put a man on top of the car next to the engine, do you remember him putting that to you?

A Mr. Sinclair said seven cars from the engine, did you not?

Q I understood him to say -- let us go over it this way. I remember him saying, and I may be wrong, he suggested to you you put a man on the ground close to the tail, another man on the top of the car next to the engine, and let us assume that is the move. Now, if you do that, first let me ask you, do you usually have one-unit locomotive or more than one-unit

Mr. Connor

locomotive?

A Well, we have two, one and sometimes three.

Q Well, assume for the moment it is a one-unit locomotive?

A All right, we will take one.

Q If you have a man on the ground and a man on top of the car next to a one-unit locomotive, do you say to the Commission in that situation the engineer can see the man on top of the car behind the engine, in a one-unit locomotive, would he be able to see him?

A He would be able to see him.

Q Could he see the man?

A With one unit, on top of the car they wouldn't be able to see from the one car; they wouldn't be able to see the man over in this here tail track, what we call the extension there.

Q You mean that the man on top of the car behind the engine, with a one-unit engine; are you saying that -- I will put it to you this way: would he or would he not be able to see the man on the ground next the tail?

A No, he would not.

Q He would therefore have to be back on some car further from the engine, is that right?

A I understood Mr. Sinclair was talking about putting a man on top of the seventh car and a man over on the tail track. Then that would put him back to where he could look over the edge and see the man on the tail track. Well, I say the seventh car would put him pretty near back where he would be looking over the edge at him and as far as I can figure that he would still be on the curve to the left.

Q Mr. Connor, I am probably responsible because I am not a railroad man, but

I think it would help if you would, as it were, let the blind lead a person with sight. I understand you to say that the man on the back of the car next to the engine, would he or would he not be able -- just answer this one question -- would he or would he not be able to see the man east of the tail?

A No.

THE CHAIRMAN: You said on the back of the car next the engine; you mean the top?

MR. LEWIS: I meant the top. Did I say back?

BY MR. LEWIS:

Q On the top of the car next the engine. Would he or would he not be able to see the man on the ground east of the tail?

A No, he would not.

Q He would have to be several cars back from the engine?

A That is right.

Q Then if he were several cars back from the engine where he could see the man on the ground next to the tail, would this man on top of the car be able to relay signals to the engineer around the curve?

A No, he would not; he would have to relay them from there to the fireman

on that curve.

Q Mr. Connor, I want to get it straight. When Mr. Sinclair was examining you I remember your agreeing with him that if you put a man next the tail and a man on top of the cars somewhere, that then it would be possible to relay signals to the engineer. My memory is that you agreed with Mr. Sinclair.

A Mr. Sinclair said to me if you put a man on the seventh car.

Q Turn around and face the Commission.

A If you put a man on the seventh car and a man out on the end of that tail track, could he relay signals up to the engineer. He didn't specify -- I specified engineman because I addressed the fireman as an engineman and I said yes, we can relay it to the engineman. But for a direct signal to the engineer it would be impossible to put a man there and a man up on the first car behind the engineer and get a signal to the engineer from that position on account that he just goes around the curve like that.

Q Where does the curve start? We have all agreed that the sketch is not too accurate. Where does the curve up toward the rock cut start?

A It starts right at the switch.

Q At the crossover at B?

A At B.

Q Now, Mr. Connor, if you will permit me and if my friend will not object. As I told you when we discussed this thing before you came into the court room, we are very anxious to have on the record and before this Commission exactly your experience and what you know and what you can imagine from what you know. Will you please try to think, and take your time about it, and consider your experience in working the Crowsnest yard and that east end of it; can you think of any way in which you as conductor could position yourself and your two brakemen when the engine comes around that curve so as to relay signals to the engineer? That is what Mr. Sinclair meant when he used the word "engineman." He meant engineer.

MR. SINCLAIR: That is what the book says.

MR. LEWIS: I am not arguing that, I am saying to the witness that when Mr. Sinclair used the word "engineman" he meant engineer, he did not mean fireman.

BY MR. LEWIS:

Q Will you tell the Commission whether from

your experience there is any way -- if there is, I want you to tell us what it is -- whether there is any way in which you could position yourself and your two brakemen so as to give signals direct to the engineer when you are pulling up or backing down from the curve toward the rock cut?

A The only way that I could see that engineer would be --

Q Speak up.

A The only way I can figure that out, a move like that, would be a man up behind the engine seven cars. I would have to have a long train to see the engineer at any time; after I got out there with about 35 cars we would then take a right-hand turn toward Lethbridge. Then you could see the engineer. It is an S curve.

Q I will stop you there. You mean this curve which ends at the east end of this sketch, Exhibit 240, when it goes off the sketch, at some point it turns right, there is a right curve?

A That is right, but it isn't on there. That does not turn right there at that cut.

Q It turns a little later to the right?

A Starts turning right.

Q And if you have a long enough train,

of say 35 cars, what you are saying is that you could then possibly see the engineer as you were on the right curve toward Lethbridge around this southern rock cut?

A Yes, that is right.

Q You say that is the only time that you can give signals direct to the engineer?

A That is right.

MR. SINCLAIR: That is certainly not what he told me. I do not know whether this is re-examination.

MR. LEWIS: I appreciate that and if my friend wants to question him again he may do so.

THE CHAIRMAN: Well, Mr. Lewis, I think the witness has said both things.

MR. LEWIS: Yes, he has.

THE CHAIRMAN: I was uncertain myself as to what he meant when he was nearly through with Mr. Sinclair and I asked Mr. Sinclair what he thought the witness had said. Mr. Sinclair stated that and the witness did not accept it. That is all. That was quite different from what he has now said. All I can say is that I am afraid we will have to see the place for ourselves. When the parties disagree on facts of this kind, if they are relevant then I presume we will have to see it.

MR. LEWIS: All I can say to you, Mr. Chairman, and to my friend, is that I appreciate the contradiction. I know it is there, but I knew there must be something wrong because this witness assured me that he knew of no way.

THE CHAIRMAN: We cannot rely very much on what the witness said the last time.

MR. LEWIS: That is right; I appreciate that.

MR. SINCLAIR: There is another way that that can be done and if my friend is through I will suggest it.

MR. LEWIS: I have one or two other questions to ask, but I do not mind my friend finishing it up now.

THE CHAIRMAN: While we are on this point perhaps it might be better to do it now.

BY MR. SINCLAIR:

Q Are you looking at Exhibit 240?

A Yes, sir.

Q You have a cut with the engine just about at the rock cut on the north side of the main line?

A Yes.

Q I suggest to you that you could put one of your men on the car behind the engine where he could be seen by the

engineman, and another man up north of the Canadian Pacific main line?

A Yes.

Q So that he is in view of the man on top of the car; the man on top of the car can see him?

A Will you excuse me a minute; you said north of the main line?

Q That is right.

A That there tail track is on the south side.

Q I am talking about another alternative entirely.

A You mean on the edge there?

Q I am going to put him north. I have given it to you at the south, and I will give it to you at the north. I will put a man north of the Canadian Pacific main line.

A Yes.

Q Where he could be seen by the man on top.

A Yes.

Q Where he could see you.

A Yes.

Q Getting the switch down on the lead.

A That is right.

Q From you to the man north to the man on top to the engineman; could that not be done?

- A I don't believe he could see the engineer on that curve with 15 cars.
- Q The man --
- A On the first car couldn't see the engineer on that curve with two units.

BY MR. LEWIS:

- Q Continuing this move. If I understood Mr. Sinclair correctly, Mr. Connor, with the engine there north of the rock cut that would be almost at the edge -- my friend will correct me if I am wrong -- of this sketch. Did you understand him to say that you would take a pull which would take your engine on the main line north of the rock cut?
- A Yes.
- Q Which would mean -- my friend will correct me if I am wrong -- the engine would be almost at the edge of the sketch, Exhibit 240?
- A Yes.
- Q Then he said to you that you would put a man on top of the car next the engine.

MR. SINCLAIR: Now we have to put up with another one.

MR. LEWIS: Is not that what you said?

MR. SINCLAIR: No, go ahead; there is another one.

MR. LEWIS: That is what I understood you to say.

HON. MR. MARTINEAU: That is what I understood him to say.

MR. SINCLAIR: He has the engine north of the entire rock cut; I had the engine just at the rock cut.

THE CHAIRMAN: The engine is south of the rock cut at the north side.

MR. LEWIS: I didn't hear him say south of the rock cut.

BY MR. LEWIS:

Q For the moment, if the engine is south of the rock cut, that would be here?

A Yes.

Q And I think you told us that if you had 15 cars, or rather that that would be 15 cars from the crossover at B to the rock cut?

A Yes.

Q That is where the engine would be, south of the rock cut?

A If it was there I don't need him on top to work on the fireman's side.

Q We are trying to find out, Mr. Connor, whether there is a way to relay signals to the engineer without using the fireman. Do you follow me?

A Yes, I do.

Q Suppose the engine is south of the

rock cut on the main line. Mr. Sinclair has suggested you put a man on top of the car next the engine?

A Yes.

Q And that you put another man somewhere on the ground north of the main track who would be able to see the man on top of the car and would be able to see you at the crossover switch?

A Yes.

Q And then you would give a signal to the man on the ground north of the track who would relay the signal to the man on top of the first car behind the engine, and Mr. Sinclair suggested to you that that man on top of the first car behind the engine would then be able to relay the signal to the engineer; is that or is that not possible?

A Not with two units, it isn't.

Q With two units it is not, why?

A Because the curvature at that point is so sharp that he wouldn't be able to see the engineer.

Q Just turn toward the Commission, Mr. Connor, and just express it in words. Who would not be able to see whom?

A He would not be able to see, the engineer would not be able to see the

brakeman on the first car on that curve with two units.

Q That is your experience?

A Yes, sir.

Q Mr. Connor, one more question regarding your switching experience. Mr. Sinclair drew to your attention a number of trips you made, one on April 26, April 29, two on May 2, May 3 and May 4, with varying switching jobs on those trips. May I repeat them as I want to ask you a question with regard to them. On April 26 you did switching at Aldersyde?

A Yes.

Q On April 29 you agreed with Mr. Sinclair that you set off some cars at Fort Macleod?

A Yes.

Q And on May 2 you did something -- I didn't make a note of it -- at Fort Macleod and at Blairmore?

A Yes.

Q And the other train on May 2, you agreed with Mr. Sinclair that that was Train 980 and you did no switching at all?

A Only set off at Macleod.

Q I think you said that usually with 980 you would not do any switching?

A No, they don't want us doing any switching.

Q Then on May 3 you were Extra West 8910
and you did some work at Fort Macleod,
Brocket, if that is the name, and
Coleman on that trip?

A Yes, that is right.

--

--

--

- Q And then finally on the 4th of May you were on first 74 and you did some work at Fort Macleod -- I forget what it was --
- A Yes.
- Q Just setting off?
- A We set off and we lifted sulphur.
- Q You set off some cars and lifted some cars at Fort Macleod?
- A Yes.
- Q No switching?
- A No just straight pick-ups.
- Q A straight set-off and a straight pick-up. Mr. Connor, will you take a moment to try to remember the last three or four months - you do not have to rush about it -- as best you can the various trips you made on this subdivision and tell the Commission whether the trip you made on May 3rd when you worked at Monarch, Fort Macleod, Brocket and Coleman would take place in the majority of your trips or a small proportion of your trips?
- A Well, Monarch and Brocket, it would be a small majority.
- Q What?
- A A small majority, not too often.
- Q You do not mean a small majority. You mean a small part of the time?
- A Yes, a small majority of the time or part of the time.
- Q You mean a small part of the time, do you. Mr.

Connor?

A Yes.

Q You mean a small part of the time?

A Yes.

Q Not very often?

A No.

Q Then, what would be more often?

A Well, I worked in Macleod and our short hauls to Pincher, Cowley, mostly gasoline to them places and our work with empties to set off at these mines and lifting west loads at Coleman. That about covers all the work there.

THE CHAIRMAN: Mr. Lewis, the impression I had from what the witness said before was that the occasions when he had switching en route to do were in the minority. That is the impression I had. Does the detail he is now giving agree or disagree with that?

MR. LEWIS: I was going to try to put a summarizing question, if I get anywhere.

THE CHAIRMAN: I have no doubt at times he does do exactly what he says but I am not sure he appreciates just what you are putting to him.

MR. LEWIS: Yes.

BY MR. LEWIS:

Q What we are trying to find out, Mr. Connor, is whether on this subdivision from Lethbridge to Crowsnest -- that is the subdivision,

isn't it?

A Yes.

Q And it is called what?

A Crowsnest sub.

Q Crowsnest subdivision -- whether on this subdivision on the extra trains which are the trains on which you work most of the time, I think you said --

A Yes, extra west and time card trains going east.

Q Whether on the trains on which you work most of your time, excluding way freights -- do not think about way freights but these through trains --

A Yes.

Q We are trying to find out whether it is a matter of practice for you to do switching only the odd time or whether as a matter of practice you do switching en route quite often or just how often?

A Well, I am just one of eleven crews --

Q No, in your own experience, Mr. Connor. That is all you can talk about.

A Sometimes I do it and sometimes I don't have to do it.

Q Well, how often would you do it? Do you do it half the time, a quarter of the time, a tenth of the time? Can you give any guess?

A I would say half of the time.

Q You would say half of the time you do switching en route?

A Yes.

MR. LEWIS: I think that is all, Mr. Chairman.

THE CHAIRMAN: That is all. Thank you, Mr. Connor.

MR. LEWIS: I suppose we will take Mr. Brunner now.

THE CHAIRMAN: If it does not incommode counsel I think we will adjourn now and as we have some work to do we will come back at 2.20 and perhaps sit a little longer to compensate.

---The Commission adjourned at 12.20 p.m. until 2.20 p.m.

Tuesday,
June 4 1957.

AFTERNOON SESSION

---The Commission resumed at 2.20 p.m.

WALTER BRUNNER, Recalled

BY MR. SINCLAIR:

- Q Mr. Brunner, you have been a brakeman and conductor since 1920?
- A 1924, sir.
- Q And for many years you have operated out of Cranbrook as a conductor?
- A That is correct.
- Q And before that as a brakeman?
- A As a brakeman, yes.
- Q You know these various subdivisions well?
- A Quite well.
- Q And you have switched in a number of yards?
- A I have switched in all of them, I think.
- Q And we can agree that the best switching practice is to give signals direct to the engineman?
- A To who?
- Q To the engineman, to the engineer?
- A To the engineer, yes.
- Q Now, the Nelson subdivision is a subdivision that runs from Cranbrook east to Nelson?

HON. MR. McLAURIN: West to Nelson.

BY MR. SINCLAIR:

- Q West to Nelson?
- A That is correct.
- Q And that is a very light traffic subdivision,

isn't it, Mr. Brunner?

Q Well, I don't really know what the company calls light traffic. There is a lot of tons are moved over it.

Q Well, for instance, there is one first-class train in each direction each day?

A That is right.

Q And one second-class train for 40 miles, from Nelson to Yahk?

A That is right.

Q And one symbol freight train?

A No. 984.

Q Yes, and the rest of the trains are extras?

A Well, we have 94 and 92 on there as well, sir.

Q Well, they are fourth-class trains?

A Yes.

Q But the only first and second-class trains are the ones I mentioned?

A Yes, that is right.

Q Now, these drags out of Nelson, they are some hours apart, these extras?

A The extras are usually not out of there. They usually run them as time card trains.

Q Well then, out of Cranbrook to Nelson?

A Them are extras.

Q And they are some hours apart?

A Yes.

Q For instance, there would be one leave about 5 or 6 in the morning and the next one 8 to 12 hours later?

- A That is right. There is about three a day, I would say.
- Q What is the maximum speed for freight trains on that subdivision?
- A The maximum speed?
- Q Yes?
- A Thirty miles an hour.
- Q If you have ore cars what is the maximum speed?
- A Twenty miles an hour around the lake.
- Q If you have ore cars that is a restriction around the lake to 20?
- A Yes.
- Q But when you have ore cars on that subdivision is not the maximum speed reduced to 25 miles an hour?
- A That is right.
- Q If you have any ore cars in the consist it is down to 25 miles an hour to prevent the concentrate from blowing off when they are loaded?
- A I didn't know why it was reduced. I thought it was on account of being short of heavy cars.
- Q Sometimes that drifts off if it goes too fast?
- A Oh yes, but they have put a coating on top which has avoided a lot of it
- Q So that is not a fast subdivision?
- A Not fast, no.
- Q Now, on the Cranbrook subdivision, that is, east from Cranbrook to Crowsnest, what is the maximum speed for freight trains?
- A Thirty miles an hour.

Q And some restrictions below that?

A That is right.

Q And on that subdivision there is one first-class train each day in each direction?

A That is right.

Q And one second-class train?

A That is right.

MR. LEWIS: Each day?

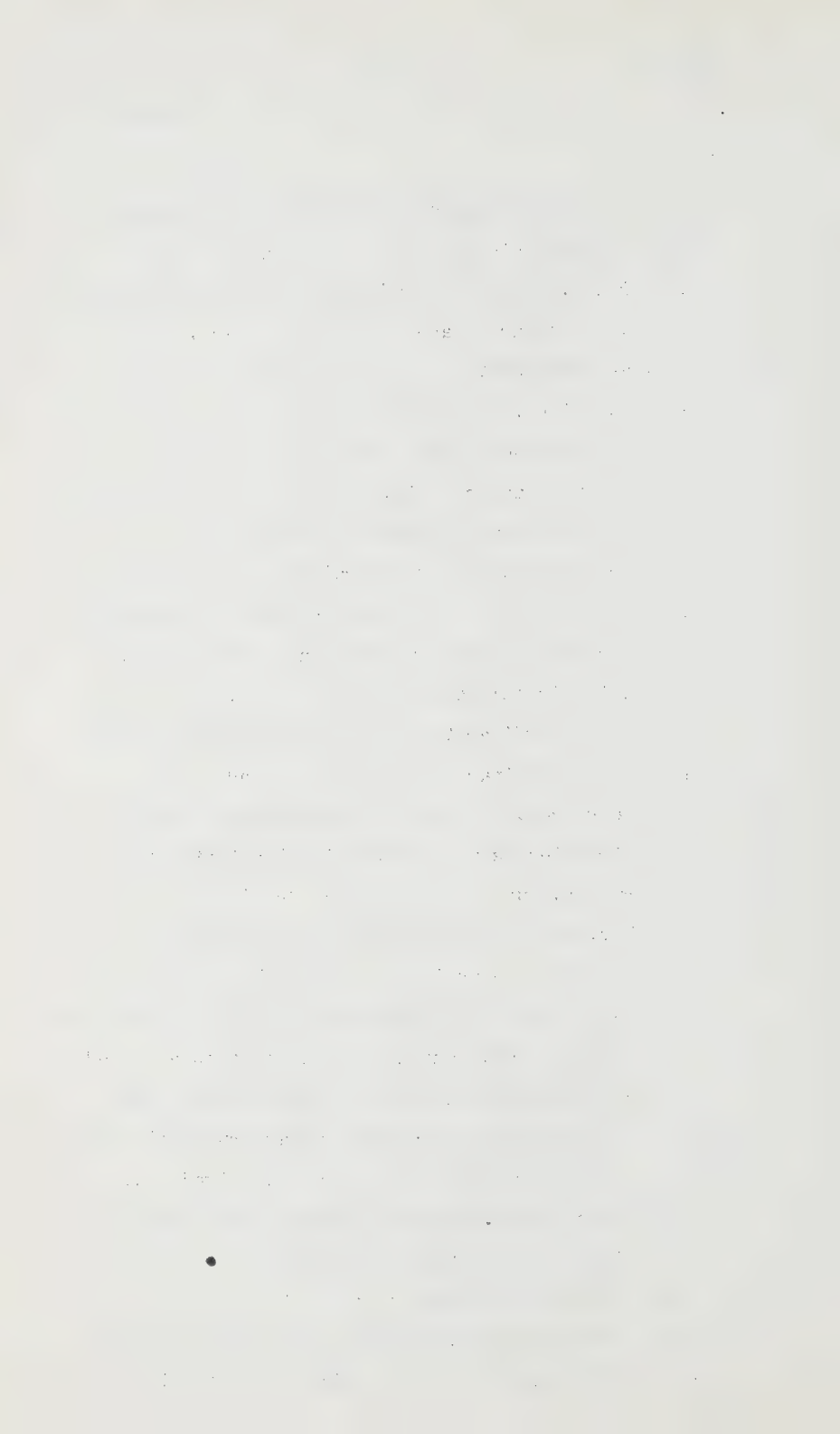
MR. SINCLAIR: Yes.

BY MR. SINCLAIR:

Q As a matter of fact, it is not unusual to have the westbound second-class train annulled?

A It has never run -- on the last time card it never ran once to my knowledge and hadn't on the new card when I left.

- Q And the balance of the trains are drags?
- A Drags.
- Q And they are spaced many hours apart, too, are they not?
- A Sometimes.
- Q Most of the time?
- A I would say not, sir.
- Q Would you say there would be less than three or four hours between trains?
- A Sometimes they are so close that we are at Michel when the train is leaving Crowsnest, which is only a 30-minute rundown.
- Q On the ordinary?
- A On the ordinary they would be spaced, should be spaced.
- Q Kimberley is another subdivision that you run on, out of Cranbrook up to Kimberley?
- A Yes.
- Q There is one assigned crew on that?
- A Yes.
- Q If they run an extra they run up that assigned crew that is back at Cranbrook?
- A Unless a flat train. They have run flat trains during the time when that mixed train was up there.
- Q With rare exceptions there is only one train on that subdivision at a time?
- A That is correct.
- Q On the Lake Windermere, that is from Golden down to Colvalli and over to Cranbrook --



W. Brunner

A That is correct.

Q That was the other subdivision. There is an assigned crew on that, too, is there not?

A Yes, sir.

Q One assigned crew?

A One assigned crew. There were two at one time. There was a way freight on just for a short time.

Q Now, there is an assigned crew.

A When I left there was an assigned crew, mixed train.

Q Now, the other evidence that you gave in connection with this Lake Windermere subdivision -- you are not suggesting to the Commission that you had a lot of switching en route on the Lake Windermere sub, are you, Mr. Brunner?

A No.

Q As a matter of fact, the only place you might do some switching on the odd occasion would be at Lake Windermere or at Canal flats?

A That is correct.

Q In both of these places signals would be given direct to the engineman because it is convenient, on account of the layout of the yard?

A Where it is possible we give the signal to the engineer.

Q I am asking you, at Canal flats or Lake Windermere signals are given direct to the engineman because of the layout of the tracks there, and that is the convenient way.

W. Brunner

- A No, sir; when we back them into the "Y" which we sometimes do, it is then necessary to give the signal to the fireman.
- Q Where is that?
- A "Y".
- Q At what station is that?
- A Canal flats.
- Q At Lake Windermere it is always on the engineman's side?
- A Yes.
- Q And at Canal flats on all moves except at the "Y" it is with the engineman?
- A That is correct.
- Q When you are going around the "Y" it is possible to give them to the engineman, Mr. Brunner?
- A Yes.
- Q I now turn to Exhibit 237, which is the sketch of Golden. This is the same train, too. The situation there, you said, is that when you were switching there the signals were passed to the engineman except in the last moves when you doubled the head end on to the balance of the train which was in the south passing track?
- A That is correct.
- Q The move, as you made it was that you pulled out of either track 1 or 2, when the head end of your train came along the north passing

W.Brunner

track extension easterly to the crossover, which is right at the very east of the sketch in Exhibit 237, right at the very edge of it, and then you pulled away around to the main line, clear of the switch, and then backed down to the C.P.R. main line to the west, cleared the crossover switch -- cleared the switch just at the station leading to the Cranbrook line, that is the Lake Windermere line; is that right?

A When we --

Q Is that it?

A We backed through the crossover up to the main line. We back on to the main line. This is just west of the crossing, back up over that with the engine.

Q That is what I understood you did?

A Then go forward.

Q You go way up the north passing track and then back way down the main line; then you clear the switch right at the station which leads on to the Lake Windermere switch, where it has got two Cranbrook lines, goes over there and goes to the main line right at the station, to the line that it pulls into there until the rear of your train is past the switch from the main line to the south passing track and then you back on to the rear of your train, couple up and go.

A Sir, I think you are mistaken or I have not

got it quite straight. We back up clear of this switch at the main line, clear your switch west of the crossing with our engine; then go forward right past to the first switch on the other side of the station and head on to our subdivision there.

Q That is correct, that is what I said.

A Well, that is all right, then; that is correct, if that is the way you said it.

Q Then you pull down over on the south subdivision, that is the Lake Windermere subdivision and go along the track and to the south, and then you have to go down east so that the cut of cars will clear the switch from the south passing track to the main line; then you back on to your train.

A In to the south pass.

Q Yes.

A That is correct.

Q Couple up and away you go. The reason you said you had trouble giving signals here was that the curvature was to the left.

A That is correct.

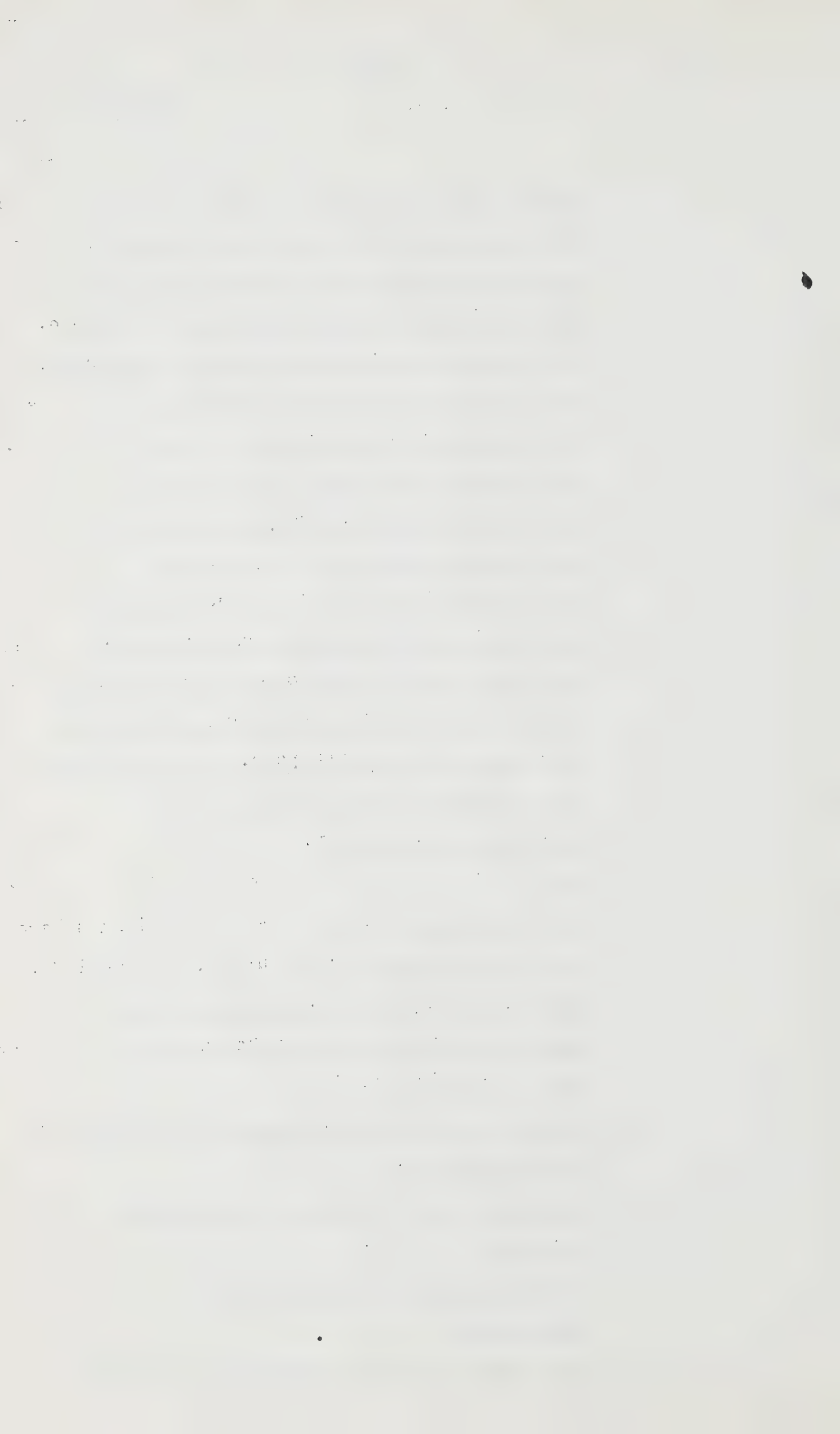
Q And you said if you had about 80 or 90 cars -- which was it?

A Sometimes, yes. I think 89 cars we had that day.

Q Is that the usual number of cars?

A Pretty well.

Q Well, then, you would have about 45 on the



W. Brunner

south passing track?

A About that; it holds 48 I think clear of the switches, clear of the block, where you put the block on.

Q So you had about 45 of the cars in the south passing track and you have 40 cars or so either in one or two?

A That is correct.

Q That you are going to double over on to your train?

A That is correct.

Q You say because you go away up the main line where there is the left curve the crew cannot position themselves to give signals direct to the engineman?

A That is correct.

Q They give it across the inside of the curve to the fireman?

A That is correct.

Q And to give it to the fireman you have two men on top?

A That is correct.

Q One how close to the engine?

A He would have to place himself; he moves as the movement goes, sir; I would say about 15 cars from the engine.

Q And the other man would be farther back in the cut on top?

A That is correct.

Q You would be down on the ground near the

W.Brunner

switch?

A That is correct.

Q Pardon me; you would be down at the switch where?

A Where you go to the crossover, that is correct. You go to the crossover from the north pass on to the main line.

Q You get the switch and relay the signals from the top?

A That is correct.

Q And they would relay them down to the fireman?

A That is correct.

Q You say you cannot position your men in any way to make that move without using the fireman as a signal passer?

A That is correct.

Q What would happen if you took a cut of 20 cars?

A What would happen? We would have to do our switching all over again.

Q You would make two moves instead of one?

A Yes, and we would have the short hauls in front and then we would have them buried.

Q Could you not marshall your train either in one or two to have two short ends to take in your second cut?

A Not always there on account of congestion of the yard.

Q It is a matter of switching them over here to get them up; it is just a case of switching

W.Brunner

when you get them out to the place where you are going to put them?

A It would be impossible to switch in this place where we are going to put them because of the inconvenience of it.

Q You would agree with me that with 20 cars signals would be relayed directly to the engineman?

A No, sir.

Q They would not?

A No, sir.

Q All right, Mr. Brunner. Before we go too far on this, I think you will agree with me that the plan, Exhibit 237, is not correct.

A I would not say it was correct, sir.

Q It is not correct; that is a fact.

A I could not tell by the degrees, sir.

Q It is a fact, is it not, Mr. Brunner, that from say, 400 feet east of the station to over a mile west, all the trackage is tangent.

THE CHAIRMAN: Straight.

MR. SINCLAIR: That is right.

THE WITNESS: Westward, yes.

MR. SINCLAIR: All tangent track. This is all curved, lefthand curve, all this trackage. I am instructed that from 400 feet east of the station straight west for over a mile the track is straight.

THE WITNESS: I do not think it is quite a

W.Brunner

mile, sir; I do not think it could possibly be a mile long.

BY MR. SINCLAIR:

Q From the station?

A From the station to the west signal is where it starts curving again.

Q You do not think it is quite a mile?

A No, sir, not 45 or 48 cars. If 56 cars it would not be a mile.

Q This sketch is all curve. It is not that?

A The yard itself is straight, but on that only the west yard is straight.

Q Actually the curve to the left does not start until you are 400 feet east of the station.

A I could not say for sure. I would say right at the switch where you head into the main track is where the curve starts.

Q It is even further east. I see where you mean, yes.

A Where we head on the south main.

Q About where the switch is. That is right at the station, according to this map. I think you will agree with me it is some distance east of the station?

A A few feet.

Q 400?

A The platform is right alongside of it, anyway, right alongside that switch.

THE CHAIRMAN: Mr. Sinclair, your question and the witness' answer are overlapping.

W.Brunner

MR. SINCLAIR: I am sorry.

BY MR. SINCLAIR:

Q If you had a cut of 20 cars I suggest to you they could be put on tangent track after coming off the yard track?

A Put them out to the main line, you mean.

Q Yes. You disagree with that?

A I disagree. You still have to give the signal on the lefthand side, 20 cars with a man on top.

THE CHAIRMAN: That was not the question put to you.

BY MR. SINCLAIR:

Q I asked you if you took a cut of 20 cars and pulled them down and you are going to move or leave the 20 cars -- whatever you are going to do with the 20 cars -- on the straight track, you would go over the crossover on the main line and push them down the main line. You could do that, could you not?

A I do not follow you sir.

Q You come out on your track No.1, say, with a cut of 20 cars?

A Right.

Q You bring them on to the north passing track clear of the crossover switch which is just west of the highway; correct?

A Yes.

Q You have no difficulty up to now in giving signals direct to the engineman?

A Only the spot when we get up to this point.

Q You say by that time the engine is on the curve?

A The engine is already on the curve.

Q And could not one of the men go over to the south and be in view of the engineman?

A Not and see us also.

Q He could not see you on the crossover switch. Look at the plan there?

A I am visualizing the yard as I know it.

Q I am suggesting to you that if we have got 20 cars on tangent track between the crossover switch and where the curve starts east of the station that if you pull a cut of 20 cars clear of the crossover switch on the north passing track it is a simple matter to position your crew on the south side. Now, your engine is here headed east?

A Yes.

Q I will not say it is a simple matter, it could be done?

A No sir, not and do it right.

Q You are saying that is impossible.

A Nothing is impossible, but it is not practicable.

Q What do you mean by that? I get that word around here. Do you mean practical or practicable?

A Practicable.

Q You do. What does that mean to you?

A It means that you cannot do your work efficiently, in other words.

W. Brunner

Q That is what you mean by "practicable"?

A That is right.

Q You mean that it cannot be done with the
resources that you have at your command?

A That is right.

- Q In other words, when you say practicable you mean it is not possible to position men so as to relay signals direct to the engineman, not possible?
- A And do it efficiently.
- Q What do you mean by "efficiently", witness? Do you mean quickly?
- A No, sir.
- Q What do you mean by "efficiently"?
- A Safely.
- Q Well, that is quite a different word. You mean safely?
- A Safely and in time so we can get out of this yard so we won't be there all day, sir.
- Q We will go into that now. So, what you mean is safely and quickly?
- A Expediently, I guess would be the word.
- Q All right now, safely and quickly or expeditiously, if you will.
- A Expeditiously.
- Q You are saying that to position men on a cut of 20 cars south of the cut would not be safe?
- A I beg your pardon?
- Q You take a cut of 20 cars?
- A Yes.
- Q You are on the north passing track?
- A That is right.
- Q You are going to back them over on to the

main line?

A That is right.

Q Are you saying it would not be safe to position your men south of the cut, that is, on the engineman's side?

A That is right; I said it would not be safe.

Q What would be the danger?

A Because the man would have to go out so far on the south side to see the engineman he would not see the movement, see the signals when we swing him down or give him a signal.

Q How far out would he have to go, witness?

A I do not know, sir.

Q Let me suggest to you --

A I know, sir, if he went out far enough to give signals he would not see us on account of the station.

Q Well, witness, all this matter comes down to a question of drawing a line, a triangle, and putting one man at the apex. Do you know what I mean by that?

A Yes, sir.

Q Well, I suggest to you that you take that move you have just talked about and draw a line on that plan yourself, that exhibit, just draw a line. You are on this track here, that is the north passing track?

A That is right.

Q I suggest you draw a line as to how far south a man would have to be?

A I have already explained to you, sir, he would have to be out so far -- there is a low spot here at the platform where he would be useless, the engineer would not be able to see him, and if he went beyond that he would not be able to see us back at the switch.

Q I have only 20 cars, now.

A Yes, sir.

Q Have you tried that?

A Yes, sir.

Q And you cannot do it?

A No, sir.

Q What if he stood on the station platform?

A He would not be able to see the engineer.

Q He could not see the engineer from the station platform?

A No, sir.

Q Have you tried that?

A Yes, sir.

Q When?

A Nearly every time we go there. We have quit trying to give signals and we put a man on top.

THE CHAIRMAN: This train is still on the north passing track, is it?

MR. SINCLAIR: This is a cut on the north passing track.

MR. LEWIS: East of the highway?

MR. SINCLAIR: No, not east of the

highway; he is just clear of the switch.

THE WITNESS: We are east of the highway. We never stop on the highway. We let him go by the highway first.

BY MR. SINCLAIR:

Q Oh well, maybe that is where our difficulty is Mr. Brunner.

A It is only three cars from the highway to the passover switch.

Q That may be going up more around the curve where he cannot get the signal without somebody going on top, but I am suggesting to you just clear of the switch?

A It would not be possible, sir.

Q You block the crossing, certainly?

A Yes.

THE CHAIRMAN: I think the witness was making an answer when you put another question.

BY MR. SINCLAIR:

Q What did you say?

A I forgot what you asked me, now.

Q I am asking you if you just clear the switch with a cut of 20 cars, the crossover switch from the main line to the north passing track?

A Yes.

Q Would it not be possible to position a man on the station platform in view of the engineman and in view of one of the balance of the crew down at the switch?

A I do not think so, sir.

Q I asked you, did you ever try it?

A I have tried it.

Q When?

A When we switch there. I do not count the cars, sir, every time, but I do not think it is possible with 20 cars you could possibly work.

Q How many cars do you think you could handle and make the move I have suggested?

A About ten.

Q About ten only?

A That would be the maximum.

BY THE CHAIRMAN:

Q If a man stood on the station platform, how many cars away to the east, between him and the engine might you have so he would be in view of the engineer?

A Were you asking me, Mr. Chairman?

Q Yes?

A I could not hear you.

Q If a man stands on the station platform, presumably he could see another man standing at the crossover switch just west of the highway?

A Yes, sir.

Q All right, now, that man standing on the station platform, how many cars away between him and the engine could there be so that he could still see the engineer?

- A I would say about five cars.
- Q How many cars between those five cars and the west side of the highway could there be?
- A The west side of the highway, would be about ten cars.
- Q Then you would have fifteen and three west of the highway, that would be eighteen?
- A That is right, eighteen or twenty cars, I have never counted them, sir. I would say with twenty cars it could not be done.
- Q Twenty cars it could not be done?
- A He could not see the signal.
- Q But eighteen it could?
- A Possibly it could, for one move, sir.
- Q That is all we are being asked. One move at a time.

BY MR. SINCLAIR:

- Q Then, if you position your crew as you move back, shove back, your crew can go back with the movement as you push it down the C.P.R. main line, couldn't you? No difficulty in that?
- A Which way, sir?
- Q You are pushing a cut, you have eighteen cars and you are going to push them over the crossover and down on the main line?
- A That is right.
- Q No difficulty in moving your crew so that in that situation a signal can be given to the engineman?

A Not after he gets in sight.

Q I started with him in sight?

A There is no difficulty after that, then.

Q So that with eighteen cars there is no difficulty. Then, I suggest, witness, that if you only say we will take two cuts, I have 36 cars, and if I make those two cuts and move them down on to the C.P.R. main line, I can then couple those up and pull east past the station to the Lake Windermere branch, correct, and clear the switch from the main line to the south passing tracks with 36 cars, correct?

A I do not follow you, sir.

Q I have two cuts of eighteen cars from Tracks 1 or 2 down on to the C.P.R. main line; I have now taken these 32 cars and I have coupled on to them and I am moving east --

MR. LEWIS: Thirty-six cars.

BY MR. SINCLAIR:

Q Thirty-six cars, and I am moving east, correct; you follow me?

A That is right.

Q You pull past the station on to the Lake Windermere line, which is just east of the station?

A Yes.

Q And I pull along there far enough so as to clear the switch from the C.P.R. main line to the south passing track?

A Yes.

Q And making that move you are not going to say to this Commission you cannot possibly position the crew to give signals direct to the engineman on that right-hand curve?

A Yes, sir.

Q Why?

A When you come up to the station you head southward, it turns off south, and then it has another left-hand curve until you get up to the smelter track, when it turns to go over the bridge over the Kicking Horse.

Q You were saying you cannot position your men so that they can see the engineman with a 36 car cut?

A That is right.

Q If you put two men up on top, can they see the engineman?

A Not unless just when he turns a corner, and when he comes back again we have to give the signal to the fireman again.

Q You say there are two small spots there where the signals disappear from view?

A That is right.

Q Have you tried this, too, witness?

A Yes, sir.

Q Did you use to switch this years ago, say five or six years ago, witness?

A Yes, sir.

Q At that time you would take your cut of

cars to the bridge and set it out on the tracks south of the Kicking Horse -- that is not shown on that plan?

A Not since I have been there, sir.

Q That can be done, can it not?

M-2

A That would not be feasible on account of the cars being spotted and loaded on the south. It is used now, and has been since I have been there, for loading and unloading material for various enterprises there.

Q Say that we clear the track, just give me this. If that track was clear and you did not use the south passing track to build your train on, the rear part of your train, but you pull your cars across the bridge?

A Yes, sir.

Q Then you make your double south of the bridge on the Cranbrook line?

A Where are you going to leave the cut that you pulled across the bridge?

Q On the track south?

A In what they call the south passover there?

Q That is right.

A Then, how are you going to get it back on your train afterwards?

Q I am asking you to make that move with me?

A Yes, I can make that move.

Q Then, I have to take over the balance of my train and couple it on south of the bridge?

- A South of the bridge?
- Q Yes?
- A Yes.
- Q Are you saying that cannot be done?
- A Am I following you, sir, that you mean you put these cars into the passing track there and you bring the tail end up, is this what I understand?
- Q Take the tail end over first?
- A Take the tail end over first?
- Q That is right.
- A Very well. It is in the south pass, in the track, whatever they call it over there?
- Q South of the bridge?
- A Yes, south of the bridge.
- Q Then, you go over with the head end?
- A That is right. Then, how do you get this head end on to your tail end?
- Q You say that cannot be done?
- A Not without giving signals on the fireman's side, it cannot be done.
- Q Have you ever made that move?
- A I have never made it, but I know that cannot be done unless you give signals on the fireman's side.
- Q There is one other way I would like to suggest you make this move here and that is, instead of pulling your train east, that you push it west, push it right through the yard down on to the main line, do you

understand what I suggest to you now?

A No, sir.

Q Well, you have got the rear end of the train on the south passing track, right?

A Yes, sir.

Q Rear end of the train on the south passing track and you have got whatever the balance of your train is all over on No. 1 or 2 and instead of pulling 1 or 2 you push it west, you back it west on 1 or 2 out to the lead and out to the main line where it says "To Revelstoke"?

A Do you mean east, shove it out past the yard?

Q Yes?

A No, sir, I will not do that.

Q Why not?

A For the simple reason we are in the same position again right out there in the dark and a signal has to be given on the fireman's side again, if you want to stop. There is a crossing not far beyond that -- I have not been too far, but I know there is a crossing just around the bend there.

Q Just a minute, witness. There is a signal just east of the yard?

A That is right.

THE CHAIRMAN: Just east of the yard?

BY MR. SINCLAIR:

Q I am sorry, just west of the yard?

A That is right.

Q And that protects you, and there is another signal farther west again?

A That is right -- at least I do not know now for sure, but I never went that far.

Q I am going to suggest to you that you push, back your train, that is, back it down 1 on to the lead and over on to the main line and push it west using that signal for protection?

A Shove blind out on to the track, no, sir.

- Q You are not shoving blind, you have a man on the point of the movement?
- A He cannot see.
- Q Have you tried to make the movement that way?
- A They tell me there is a crossing up there but I don't know how far it is.
- Q Who told you?
- A The men we are working with.
- Q Do you think the movement cannot be made that way?
- A I would not make it that way.
- Q You would not make it that way?
- A No, sir.
- Q Have you had a D-9 engine; you must have been up there when you had steam power?
- A Certainly.
- Q If you had do you think you could lift a train out of the south pass after doubling over?
- A We have.
- Q Witness, did not you use to have the tail end of your cut, or one cut of your train over the bridge?
- A It all depends how many tons we have.
- Q Is not that the normal way you used to do the movement?
- A I have never done it that way.
- Q Not even with steam power?
- A No, sir.

Q When you had steam power you just used shorter cuts?

A We often had shorter trains when we used steam power. We never, never have I personally been engaged in taking cars over there to fill out the line.

Q I do not follow you, I do not follow what you are saying.

A When we left from Golden.

Q You did not double at all?

A No, sir.

Q I thought you gave me a maximum of 50-odd cars?

A I wouldn't know how many, just how many cars; yes, it would give us 50 cars at least.

Q Maybe 60 cars, depending on which track you used?

A I have taken as many as 65 or 70 cars with a D-9 engine right out of Golden yard.

Q If you did that you would have no difficulty using the engineman to relay signals to because you would not be doing this doubling? Is that what you are telling the Commission?

A No, sir, I was not telling the Commission anything about it.

Q What was your suggestion if you pull right out of Golden, as you say?

- A If we pull out of Golden we just line the switches behind us and go.
- Q There is no difficulty about passing signals?
- A No, sir, we don't have to pass signals then. Usually we get a high-ball on the gate.
- Q Somebody gets the switch for you?
- A Yes, somebody gets the switch.
- Q Don't use those fancy phrases about high-ball on the gate. Somebody gets the switch for you?
- A That is correct.

THE CHAIRMAN: This last may be clear to you, Mr. Sinclair, but it is not clear to me.

MR. SINCLAIR: I think the witness said that if you have 65 cars or so --

THE CHAIRMAN: Where? .

MR. SINCLAIR: At Golden.

THE CHAIRMAN: Where?

MR. SINCLAIR: Made up on the north side of the main line.

THE CHAIRMAN: On what track?

BY MR. SINCLAIR:

- Q Is that correct?
- A I don't follow you there. What was that you said?
- Q If you have 65 cars made up, if you have

your train made up north of the Canadian Pacific main line --

A We make up in the south pass. That is where I had explained it. We make this doubling over, as we have explained it, and then we go from there.

Q Just a minute. I am talking about the time when you are not doubling your train by the use of the passing track. You are only using the trackage north of the Canadian Pacific main line. You have said you can lift up to 65 cars without any necessity to double?

A We have pulled down like that. If we made it up we made it up so that we could back off and not have to worry about the crossovers. There are four crossover switches between there and that slows down the engine going through, so we never did pull through there. Never did I personally as brakeman or conductor go through them crossovers with a D-9 when it was possible, which it always has been, to come out the other way.

Q The way I have put it to you is that if you did build your train north of the Canadian Pacific main line --

A In the north pass?

Q That is all tangent track up there, straight track?

A But it is not once we start leaving there.

Q Will you follow me, please? It is tangent track west of the highway on the north main line, the north pass and No. 1 and No. 2; that is correct, is it not?

A Yes.

Q And you build your train over there.

THE CHAIRMAN: Along one of those tracks?

MR. SINCLAIR: Yes.

BY MR. SINCLAIR:

Q You build your train over there.

A Why?

Q I am suggesting that you build your train over there. Are you following me?

A Yes, sir.

Q Now, when you do that you do not have to double by coming onto the south passing track, do you?

A No, sir.

Q I am suggesting to you or asking you if it is not possible by building your train north of the Canadian Pacific main line to obviate the necessity that you say is a necessity of giving signals to the fireman?

A No, sir.

Q Where would you need the fireman for

passing signals when you build your train on straight track?

A When we build -- you must remember that we have tonnage trains there and if we go through all those crossovers which we would have to we will have to double some place else because we will not get out.

Q I am asking you if you build here north of the main line where do you need to use the fireman as a signal passer?

A When we couple on in the north pass in the first place we have to use the fireman to pass signals to.

Q On straight track?

A We are not on straight track when we get that many cars, 65 cars.

Q Where are you?

A You say your train is on the north pass, part of it, and you are out over the crossovers to the bridge to the north by the time you get your train made up.

Q I thought you told me this north passing track would hold, what was it, 50 -- 60 cars?

A One end to the other?

Q Yes, that is right.

A I wouldn't say so.

Q I thought you told me that earlier.

A I would not say it holds that; it holds more than the south pass and the south

pass holds 48.

Q Fifty or sixty cars was not bad?

A Between that, yes. You are getting up to 60 and I thought it was getting a little high.

Q I won't argue if it is 54 or 55. Then if you are going to take 65 or 70 cars you only have to put on a very few cars rather than taking 8?

A That is right.

Q As you would suggest. Now, when you have a train like that would you tell the Commission please when you would need the fireman to relay signals?

A I don't follow you on that.

BY THE CHAIRMAN:

Q As I understand it, Mr. Brunner, you are being asked about coming down with a train of 54 cars on the north passing track, and just for that purpose?

A With 54 cars we wouldn't need to relay signals to the fireman.

Q That is the question.

A If we just back an engine onto the train and are pulling out. That is what I understand.

Q It is when you are collecting those 54 cars together on that track, as I understand the question?

A If the cars were all on the north pass

then we would have no signals to relay, but if we have to pull them out of 1 or 2 and we have up to 20 cars, we have to start relaying signals.

BY MR. SINCLAIR:

Q You build your train on the north passing track with cuts of up to 20 cars, as you have explained earlier, and you would not need to use the fireman. Now you have built the train up to 54 cars and you are going to pull them out to go down to Lake Windemere?

A Yes.

Q I take it that your answer to the Chairman was that you would not need the fireman?

A That is right.

BY THE CHAIRMAN:

Q I do not see any crossover on this switch.

A No, the crossovers are not shown.

Q Just a minute.

A I thought you were talking to me.

THE CHAIRMAN: I do not see any crossovers from the north passing track onto the main line which you could go into and pull ahead into and which would take you onto the Windemere Subdivision. This sketch may be faulty.

MR. SINCLAIR: That is what the witness is saying.

BY MR. SINCLAIR:

Q I think that is right, that is what you are saying?

A That is correct.

BY THE CHAIRMAN:

Q Where is it?

A The crossover -- one starts approximately where you see that dot on the north side of the tracks, where you see that dot. It is a water-tank, representing a water-tank.

Q Where you see the circle?

A Yes, the circle. One switch is there. Then it crosses over onto the main line. I don't know how many feet the switches are apart for crossovers, but I would say a distance of maybe 75 feet.

HON. MR. McLAURIN: It is up near the station?

THE WITNESS: Yes, it is just east of the station. There is two crossovers, one at the north pass to the Canadian Pacific main line and one from the Canadian Pacific main line to the south main line which ends near the point where the turn-off is there to the south.

THE CHAIRMAN: Is this not just another quarrel we have with the artist?

MR. SINCLAIR: He has got curvitis.

MR. LEWIS: Not at all. We just could not anticipate all the moves my learned friend would want to make in order to get rid of signals to the fireman, and we did not have a map.

THE CHAIRMAN: You did very well under the circumstances. All right, Mr. Sinclair.

HON. MR. McLAURIN: If we go from there to the next yard let us take a helicopter.

MR. SINCLAIR: There is just one question I wish to ask this witness about Exhibit 237, and it applies also to the other places where there are curves, left-hand curves which seem to give him difficulty.

BY MR. SINCLAIR:

Q Have you ever seen a crew moving, the man on the ground moving along where the curve is?

A The man on the ground who repeats the signals has to move continuously, and also if he is on top he has to work with the movement. He keeps the head end in sight, no matter when he is repeating the signals.

Q I am suggesting to you that if you move the man who is on the ground, even if you have a cut of 40 cars and work on the south side; if he moves with the movement on the south side, on the

ground, not on top, but on the south side, and his mate is also on the south side, that it is then possible to position your men so as to relay signals to the engineman?

A No, sir.

Q Have you tried it?

A Yes, sir.

--

--

--

THE CHAIRMAN: Then so far as Exhibit 237 is concerned you and the witness are agreed on a train of not more than 54 cars.

MR. SINCLAIR: That is right. I am agreeing with this witness that you can do it with 54.

THE CHAIRMAN: That is what I am speaking about.

MR. SINCLAIR: On that move.

THE CHAIRMAN: And what is the biggest train that is hauled out of there?

MR. SINCLAIR: He says 80 to 90.

BY MR. SINCLAIR:

Q What is the average that you are pulling down there, Mr. Brunner?

A The average is over 80 cars right now with a 7100 class engine.

Q A 7100 class engine is a yard switching diesel?

A A yard switcher diesel.

Q Are you saying that every time you have gone up there you have got 80 cars?

A Every time I have been up there.

Q How many times have you been up there in the last six months?

A I have been up there twice recently.

Q How many times in the last six months?

A I think that was all.

Q On both of those trips you got over 80 cars?

A Yes.

BY THE CHAIRMAN:

- Q I was just wondering, Mr. Brunner, in an amateur sort of way, the trains which you were building on the north passing track, which is 54 cars, did you take them out of tracks No. 1 and No. 2?
- A Mr. Sinclair suggested taking them out 15 cars at a time --
- Q I say you got them from tracks No. 1 and 2?
- A Out of 1 and 2.
- Q And would the other cars, the difference between 54 and 80, be on 1 and 2 also?
- A Mr. Chairman, we get the cars -- when we make up a train there we don't get the cars all off 1 and 2. We often have them out of what they call the smelter track which is an extension as you will see on this Exhibit 237, just at this east end by "B" you will see three tracks extending there off of the south main. We often get cars out of there. It is called the smelter track and the stockyard track and they extend along the main line for a considerable distance, hold around 35 cars, I think. We usually nose on to them and pull them back when we also give signals to the fireman at that point.

THE CHAIRMAN: All I was wondering, Mr. Sinclair, was, having got your 54 cars, if they could get the rest of them on the tail end in some way in one cut or more than one cut.

MR. SINCLAIR: The witness has just now added something more. He has said that over at "B" he picks up cars on his nose and when he is backing them up he gives signals to the fireman also.

THE WITNESS: That is right.

BY MR. SINCLAIR:

Q Are you suggesting that is necessary?

A Very much so.

Q I think, Mr. Brunner, that with three men you will agree with me you could position your men on these tracks so as not to give signals to the fireman?

A No, sir.

Q Let me put something to you, Mr. Brunner, and tell me if you agree with this. This is a statement that applies to all your work made by some officers who have made personal observation of your work.

"The switching in almost all cases of conductor Brunner's crew is performed by the trainmen only. Conductor Brunner attends to securing train orders, way bills, other papers necessary on his trip and does not participate in switching movement?

A That is correct. When you say "participate in" -- that I am actually switching.

BY THE CHAIRMAN:

Q Well then, has your evidence been given on the

assumption that all these switching movements at Golden have been done with the engine crew of two and the train crew of two?

A And I lay out the work for them, the actual switching.

Q No, no.

A Except when I have to help to repeat signals.

Q I am sure I am lost now.

BY MR. SINCLAIR:

Q What the Chairman is saying is that these moves are made with the brakemen and the two other people and you supervise them?

A That is right, sir.

Q So actually there are only the two ground men doing the switching?

A Except when it is necessary to repeat signals and we are making a long move.

Q Then sometimes you assist them?

A Yes, sir, and watch the crossings at Golden.

Q And watch the crossings at Golden?

A Yes.

Q But you do not climb cars and get switches and things of that nature? You just supervise?

A No sir, I have got cars, taken the brakes off and done switching.

Q Well, witness, I put a statement to you and you agreed with me that it was right. Now you are saying your practice is to actively participate in the switching?

A Not in every move, sir.

Q Not in most moves?

A Not in most moves.

Q And these examples that you have given to the Commission of moves are where there were two men and the engine crew doing the switching?

A No, sir.

Q In each case you were participating?

A I watched the movement, supervised the movement and when necessary gave assistance.

Q But you did not participate in the switching?

A Is that not part of switching, sir?

Q You are supervising but you are not actively engaged in the chain of signal passing and, for instance, climbing the odd car?

A Yes, sir.

Q In these moves you have given to the Commission

A Yes, sir.

Q Well, look at them and tell me the ones that you did not take part in the switching.

Exhibit 230, did you take part in the switching there?

THE CHAIRMAN: 230 or 237?

MR. SINCLAIR: I am going to go right through them all.

BY MR. SINCLAIR:

Q Did you take part in the switching in Exhibit 230?

A No, sir.

Q Exhibit 231, did you take part in the switching there?

THE CHAIRMAN: You mean participate as a signal passer?

MR. SINCLAIR: That is right.

BY MR. SINCLAIR:

Q Exhibit 231?

A Yes, sir.

Q You did take part in it there?

A Yes.

Q What part did you play in 231?

A In repeating signals.

Q Where were you standing?

A I was standing on the north side of the track between the station and the main line.

Q And you were repeating signals to whom?

A Repeating signals to the head end brakeman which was up on top of the cars at the rock cut east of the switch.

Q Your engine was headed east here?

A Headed east.

Q Exhibit 232, did you participate in those movements?

A Yes, sir.

Q Both at the mill spur and at the fruit spur?

A Yes, sir.

Q Actually took part in relaying signals?

A That is right, and switching.

Q Exhibit 233, that is the one at Procter. Remember, witness, these are specific moves you have in mind?

A Yes, sir.

Q All right. Exhibit 233?

A No, sir.

Q Exhibit 234?

A Yes, sir.

Q Did the whole three men engage in those moves?

A Yes, sir.

Q Exhibit 235?

A No, sir.

Q Exhibit 236?

A Yes, sir.

Q Exhibit 237?

THE CHAIRMAN: That is Golden?

THE WITNESS: Yes, sir.

BY MR. SINCLAIR:

Q So that we finish up with what, yes on 237, no on 236 --

THE CHAIRMAN: Yes.

BY MR. SINCLAIR:

Q Yes on 236, no on 235, yes on 234, no on 233, yes on 232, yes on 231 and no on 230?

A Correct.

Q Now, witness, before I go into that, you did not file a plan of the Kimberley subdivision. As I recollect it, you have been up there a good many times?

A That is right.

Q And it is a very heavy grade, you said?

A Yes, sir.

Q You pull empties up and bring loads back?

A Correct.

Q How many cars would you take up there?

A What power have we, sir?

Q Well, what power do you want to have?

A Well, with two units, diesels, we will take up 20 cars of rock.

Q Twenty cars?

A That is phosphate rock.

Q With one diesel how many cars will you take up?

A You could take up ten.

Q In the steam days with heavy steam power how many cars did you used to take up there?

A I would say five. That is approximate, these figures are. I would say five.

Q With two N-2's? You have run on two N-2's double heading up there?

A Yes.

Q How many cars did you used to take up?

A You would take double the amount.

Q You would take more than ten, wouldn't you, witness?

A I don't think so, sir. You wouldn't of rock, sir. They are awfully heavy cars. They are close to 100 tons.

Q Then, when you went up there in the steam days with the firemen on the N-2's you would pull out of Cranbrook and move up about five miles and then start to climb right away, didn't you?

A Well, we go down in the hollow at Wycliffe and then start to climb.

Q And then start to climb?

A That is right.

Q And the fireman would be down there working steadily at his fire until he got right to Kimberley?

A Until he got up over the hump at Porteous. That is about a mile and a half.

Q And then he dips down?

A Then he is on the level for a stretch.

Q How far?

A About a mile and a half.

Q Then what happens?

A Then he is uphill again.

Q All the way?

A All the way to Kimberley.

Q And the fireman is on the deck there all the time when he is going up the last stretch?

A I was never on the head end at that time. I wouldn't know.

Q In any event, you said you had great difficulty in these switching moves up there?

A Very many of them.

Q When were you last up there switching, Mr. Brunner?

A I haven't been up there for some time except on a float train. It is some time since I have been up there.

Q How many years?

A Oh, a year.

Q Over a year?

A I don't think it has been over a year since I

have been up on the float train.

Q You made one move on the float train. That is a preference job, isn't it, and you have not got enough whiskers to hold that assigned job?

A This is not an assigned job. It is a float train going up to load company O.C.S. rock.

Q This is an extra?

A That is right.

Q The last time you went up there was less than a year ago?

A Yes, sir.

Q Do you remember when?

A No, sir.

Q And on that occasion did you have difficulty switching?

A No, sir.

Q Were all the signals given to the engineman?

A No, sir.

Q Why were they given to the fireman, for your convenience?

A It was impossible to give them to the engineer at all times.

Q Do you know the meaning of "impossible", witness?

A I know the way I use it, anyway.

Q It means that you have not done it?

A That is right.

MR. LEWIS: I think this deserves a smoke.

MR. SINCLAIR: I think we will stop now with that, Mr. Chairman.

--- Recess.

-- After recess.

WALTER BRUNNER, Recalled

EXAMINED BY MR. SINCLAIR:

- Q We were dealing with Kimberley, Mr. Bunner.
The type of cars you have there are either
gondola cars or box cars?
- A We have some tank cars and some flat cars
as well.
- Q When you are moving gondola cars it is quite
possible for a man to climb up the side of
the gondola car and stand on the ladder
waist high, is it not, and give signals?
- A Not very common to do that, sir, as you are
too high, you have nothing to hold on to.
- Q I am asking you whether you can climb up the
side, hold on to the bar and give the signals
waist high?
- A No sir.
- Q You cannot do it?
- A No, sir.
- Q Have you ever seen a brakeman or a switchman
doing that, Mr. Brunner.
- A No sir, and I hope he does not.
- Q Have you ever seen a man climb a gondola car
and put his leg over?
- A Yes, sir.
- Q And give signals that way?

W. Brunner

A Yes sir.

Q You suggest when you are switching gondola cars at Kimberley you position them in such a way that signals cannot be given to the engineman?

A It is not feasible, sir.

Q I am asking you if you have never seen it done that way?

A No, sir, I have never seen that done that way.

Q You say it is impossible to?

A Yes, sir.

Q You have never done it?

A No, sir.

Q As a matter of fact, when you go up there you do not take part in switching, do you?

A I certainly do, sir.

Q On the Kimberley job?

A Yes, sir.

Q When you were up there the last time did you participate actively in the switching?

A I certainly did.

Q On each of the moves?

A Yes, sir.

Q You did not just supervise?

A No, sir, it is a three-man job.

Q You used the fireman on every move?

A Not every move.

Q On how many moves did you use the fireman?

A The moves, sir? I would say half the moves.

- Q On half the moves?
- A Yes, sir.
- Q Into the concentrator?
- A Yes, into the concentrator.
- Q When you pushed into the concentrator?
- A When we are backing into the concentrator, sir, we would be shoving the empties.
- Q You used the fireman?
- A Yes, sir.
- Q And it is impossible to use the engineman?
- A I would say so, sir.
- Q Have you tried?
- A Yes, sir.
- Q You seem to have tried them all.
- A Yes, sir.
- Q When did you last try this?
- A The last time I was up there when we had empties to put off.
- Q Do you know Mr. Fleck?
- A Yes, sir.
- Q He acted as superintendent on that territory, did he not?
- A That is correct.
- Q Was he up there when you made these moves?
- A No, sir.
- Q Has he ever been up there when you made the moves?
- A No, sir.
- Q Do you know Mr. Smith who is in the room?
- A Yes, sir.

Q Was he up there when you made the moves?

A I don't think so, sir.

Q You worked in that territory, too.

A Yes, sir.

Q Just recently you said the reason you wanted the fireman is that it makes it more convenient around certain locations and it does not make the conductor take part in the switching moves. Do you remember that?

A No, sir.

Q You never said that?

A I don't think so, sir.

Q I do not know if I have this word for word. Is that what you are saying?

A I don't think I said it at all, sir.

Q It is not what you think?

A No, sir.

Q The only reason you need a fireman is that you have to have him for signal passing?

A That is right, sir.

Q Well, then, looking at Exhibit 231, the move here, as you explained to the Commission, is eastbound; you were eastbound?

A Correct.

Q You have no trouble westbound here?

A No, sir.

Q There is a "Y" here?

A That is right.

Q Did you ever turn your engine?

A Not recently.

Q If you turned your engine, then you would be headed west; your engine would be headed west.

A That is right.

Q Let us turn to Exhibit 232. This is at Creston. Here you are westbound when you had your difficulty; correct?

A No difficulty, sir, just the regular work.

Q You had your difficulty giving the signals direct to the engineman?

A That is correct, sir.

Q On Exhibit 232; first you dropped the cars into the mill spur and the fruit spur, and then you spotted them with the cars on the nose of your engine?

A That is correct.

Q Now, look at the mill spur. How many cars would you spot in the mill spur?

A How many could we spot?

Q How many did you spot, the usual number.

A About four.

Q So that you would drop four cars on the mill spur and then you would spot them?

A No, sir, it is not quite as simple as that. There is always cars in the mill spur, and we cut those empties in behind.

Q I see. Well, how many cars would there be in the spur?

A Sometimes as high as 12.

W. Brunner

BY THE CHAIRMAN:

Q That means you have to take the 12 out and put the four in?

A Yes, sir.

BY MR. SINCLAIR:

Q When you are spotting you are working with four cars?

A No; we are spotting with all of them, sir.

Q You go in --

A We drop them usually into the fruit spur.

Q I am asking you about the mill spur. When you were speaking about the 12 cars, it was the fruit spur. How many cars would be in the mill spur?

A Just what I said, 12 cars approximately.

Q In the mill spur?

A In the mill spur, sir.

Q I thought you changed to the fruit spur. You say there would be about 12 cars in the mill spur?

A Yes, sir.

Q Then you would have to spot four?

A That is correct, sir.

THE CHAIRMAN: Take the 12 out first.

BY MR. SINCLAIR:

Q You would take the 12 out first?

A I was going to explain to you, sir, that we usually drop them into the mill spur or into the fruit spur or the back trap; reach into the mill spur and get them cars

W.Brunner

and then shove them in as there is no room
to make a drop in the mill spur itself;
it is full.

Q When you gave your evidence yesterday
and when Mr. Lewis undertook to explain
how it was done you were dropping them right
into these spurs?

A Into the fruit spur.

Q And also into the mill spur?

A No, sir.

Q My note was wrong.

THE CHAIRMAN: What did he say about the mill spur?

MR. SINCLAIR: What he says is that he puts the loads into the back track, then he picks them up on his nose, draws them down and shoves them into the mill spur. That is what you are saying, isn't it?

THE WITNESS: Yes, that is correct.

THE CHAIRMAN: The mill spur is then empty?

MR. SINCLAIR: No, what he has then is the twelve cars plus four, that would be sixteen cars.

THE CHAIRMAN: Oh, I see.

MR. SINCLAIR: He goes in, picks up twelve, draws them down, comes back, picks up four he is going to spot, comes back and shoves with sixteen.

THE WITNESS: That is right.

BY MR. SINCLAIR:

Q That is the usual move?

A That is the usual move.

Q And the usual thing is sixteen cars?

A That is the usual thing; there is sometimes one or two less, but it is approximately between fourteen and eighteen cars in there when we are finished.

Q Are you saying it is impossible there to position your men so that signals can be relayed directly to the engineman when

you are spotting?

A That is right.

Q That cannery there has a platform?

A Yes.

Q Can a man not stand on the platform?

A He certainly could.

Q Could he not, on that platform, be in view of the engineman?

A No, sir.

Q When you are pushing cars?

A No, sir.

Q What would prevent the engineman from seeing him?

A When he is making the move off the passing track into the curve going into the cannery, the engineman would be out of sight.

BY THE CHAIRMAN:

Q Which way is the engine facing?

A That is into the mill spur. There is a turnout.

Q Which way is the engine facing?

A The engine is facing west, sir.

BY MR. SINCLAIR:

Q You are saying with sixteen cars the engine would be back on the main line?

A When we are shoving in, sir --

Q With sixteen cars your engine would be back on the main line?

A No, sir, not on the main line.

Q I am sorry, on the passing track?

- A Correct.
- Q And he could not see a man on the easterly side of the platform?
- A No, sir.
- Q Could he see a man on top of the first car in front of the engine?
- A Right while he is on the passing track, yes, he could see a man all the way on the first car, but the man cannot see us give signals.
- Q The engineer can see, at all times, a man on the first car next to the engine?
- A That is right.
- Q But he cannot see you?
- A That is the man on the car cannot see us.
- Q Why can't he see you?
- A Because of the curvature, and we are down on the ground.
- Q If one of your other men got on top, then he could see farther down?
- A He could see the other man.
- Q And that man could see you?
- A Yes, sir.
- Q And the signals could be relayed that way directly to the engineman?
- A There is a lot of flat cars in there, too, sir, you know.

THE CHAIRMAN: You are just being asked whether signals could be relayed in that

way to the engineer?

THE WITNESS: Yes.

BY MR. SINCLAIR:

Q Now, when we come down to the fruit spur, you are going to drop what, three or four cars into the fruit spur?

A We have to drop them all, all we are going to use, and then we start switching them in the way we want to switch them.

Q How many cars would you put into the fruit spur?

A Well, whatever we have.

Q What is the usual number of cars that you will put into the fruit spur?

A Say four.

Q Are there any cars already in there?

A Certainly.

Q How many?

A Well, there would be probably four or five in there.

Q So we would have eight or nine cars that we would have to work with on the fruit spur, correct?

A Right.

Q And you are pushing these cars with your engine pointed west?

A That is right.

Q If you put a man on the first car next to the engine, on top, the engineman can see him again?

A That is right.

Q Throughout this move?

A That is right.

Q And that man, can he see somebody on the ground eight or nine cars ahead of him?

A He certainly can.

Q Could that man relay signals to the man on top?

A That is in the fruit spur you are talking about?

Q That is right?

A That is right.

Q Signals can be relayed in that way directly to the engine?

A That is right.

Q Exhibit No. 234, that is at Wardner; you have three men on this one, according to your evidence, working on the moves, and your evidence to the Commission was that when you were eastbound -- this is the sketch, if I may say so, that is upside down; in other words, the top of the sketch is south rather than north?

A Yes, that is right.

Q So that the left-hand side is east?

A Correct.

Q And you are eastbound, and your evidence was that you used the fireman to reduce your train, to pass signals?

A To pass signals.

- Q And that you reduced your train?
- A That is right.
- Q That is a straight set-out?
- A It could be it mostly is.
- Q This move you had in mind was a set-out?
- A That is right.
- Q How many cars would you set out?
- A We have set off 20 cars there.
- Q As I recollect your evidence, you pulled to the east, cut off, stopped west of the point A, cut off 20?
- A East of the point A -- you mean the first stop we made?
- Q Yes?
- A Yes, that is correct.
- Q Stopped east of the point A, cut off 20, clear the switch at A and take the cars into the yard?
- A That is right.

THE CHAIRMAN: With the engine facing east?

BY MR. SINCLAIR:

- Q The engine facing east, so that the engine-man is on the south side?
- A Right.
- Q Is it your evidence that you cannot position your men with these 20 cars so, as to give signals direct to the engineman with three men?
- A That is right.

- Q What is immediately to the south of this lead?
- A Immediately to the south of that is open country, right there; it has been sort of a flat where they piled lumber.
- Q It is all vacant?
- A It is vacant.
- Q Can he walk out there?
- A No, sir.
- Q Why?
- A On account of the snow.
- Q But this is just in the winter time?
- A Well, that is nine months in the year, sir.
- Q I think you are stretching it a little bit when you say you have winter nine months in a year, even at Wardner. You think about it. That means you have spring and summer in June, July and August, is that it?
- A That is right.
- Q It starts to snow at the end of August?
- A It froze the vegetables in August.
- Q You mean you have a nip of frost, is that right?
- A That is right.
- Q They do not even call that winter in Alberta. So, when there is not a heavy snow it is quite possible to position your crew to give signals to the engineman?



- A No, sir.
- Q By walking out south?
- A No, sir.
- Q Well, witness, tell me why, if you walk out south, you cannot position a man out south of the lead?
- A The man out south, sir, can see the engineer but he would not be able to see the rest of the crew.
- Q Could he not position himself in a line to look down Track No. 2?
- A No, sir, it is on a curve, the yard is a sort of S curve.
- Q I am looking at your sketch, Mr. Brunner, is this sketch wrong, too?
- A Well, that is the way the yard is in my mind, sir.
- Q What you are saying is this sketch is wrong?
- A Well, it is not absolutely true. You could not see up the tracks, sir.
- Q If you had a man on top of the point car, could you see him?
- A From where?
- Q Standing out south of the lead?
- A You could see the man on top there, yes.
- Q And you could see the engineman?
- A No.
- Q Why not, he is on the south side?
- A Well, he would not be able to see the

man if he gets around the curve, he would not be able to see him.

Q Could he not look to the south and see the man that is out on the flat ground, the engineman?

A No, sir.

Q There is nothing between him and the south?

A With 20 cars, there is the burner there and it is always smoky.

Q Are you saying that the engineman cannot see a man that positions himself south of the lead?

A If the man goes far enough south, naturally the engineman can see him, but then he will not be able to see the other man.

Q That man can see the man on top of the car?

A Yes.

Q In the light of that answer, how can you say you cannot position your men so as to give signals directly to the engineman?

A You have to go down and make the joints, sir.

Q Can't the man on the point get off and make the joint after he stops?

A He is on top and you cannot see, sir, so easily.

Q You could make a six-foot stop and then

bring him back in?

A I do not think it would be possible.

Q You don't?

A No.

Q This is not one you have tried?

A No.

- Q When you made this move, witness, where were you standing?
- A I was out here about opposite B up north.
- Q Opposite B on the north side?
- A That is right.
- Q You were standing between the lead and the main line?
- A No, sir, I was out north of the main line.
- Q You were north of the main line?
- A Yes, sir.
- Q How far north?
- A Just clear of the main line.
- Q Just immediately north of the main line. Where was your head man?
- A The head man was up on top about five cars from the engine.
- Q About five cars from the engine. Could the engineman see him there?
- A The fireman could see him there.
- Q The engineman could not?
- A Could not see him, no, sir.
- Q If he moved up to the first car the engineman could see him?
- A Not with two units, no, sir.
- Q Two road switchers?
- A Two road switchers, he couldn't see him.
- Q He could not see him?
- A No, sir.
- Q Say he stood on the road switcher, in

the cab on the left-hand side?

A Stayed on the leading switcher?

Q Yes, on the left-hand side.

A The engineman could not see him.

Q Could not see him?

A Not on the left-hand side.

Q Across the cab?

A No, sir; inside the cab, you mean?

Q That is right.

A I thought on the outside.

Q Put him in the cab and he could see him there?

A Certainly.

Q You could see the man on the point?

A Yes, I can see the man on the point.
You mean on the point of the cars going back?

Q Yes.

A I couldn't see the man; that is why the head man -- he was five cars back and that is why he had to be five cars back, to repeat the signal to me.

Q I asked if you could see the man on the point standing north of the main line and you said yes?

A I am confused about the question you asked me.

Q I am asking you, witness; you said the way you did it was that you had two men on top, one man on top at the point?

- A That is right.
- Q And one man five or six cars back?
- A Yes, that is right.
- Q And you are standing north of the main line?
- A That is right.
- Q The signals were relayed through you and through the fireman?
- A From the man on top of the car to me to the fireman.
- Q Come from the man on top to you to the fireman?
- A From the point to me, to the man on top, to the fireman.
- Q From the man on the point to you, to the man on top, to the fireman, that was the sequence?
- A Yes, sir.
- Q Could not the fireman see you?
- A Not when he got down behind the mill; for a short distance he couldn't see me.
- Q Behind the mill?
- A Yes. There is cars here on this track, the mill track as well, that blocks the view.
- Q You have some cars in the mill track?
- A There is always cars in the mill track there.

THE CHAIRMAN: Which is the mill track?

MR. SINCLAIR: The mill track is --

THE WITNESS: East of A.

BY MR. SINCLAIR:

- Q You are saying that **your engine** is around that curve -- is that what you are saying?
- A That is right.
- Q And for that reason you could not see the engine yourself?
- A Could not see the engine myself, no, sir.
- Q That is right; the only way you could see the engine yourself would be on the south side of the track?
- A Could not see it from there either.
- Q There is nothing on the south side of the track to interfere with your view?
- A I couldn't see the signal the other man is giving.
- Q I am asking you if standing south here there would be nothing to prevent you seeing the engine?
- A Yes, sir.
- Q What?
- A The curvature. You have to go a quarter of a mile out to see the engine, up the hill, with 20 cars.
- Q With 20 cars you say you would have to go a quarter of a mile?
- A Quite a ways, a long way; it would be too far to do any work.

Q What kind of curve is this; how large a degree of curvature, do you know?

A I don't know.

Q But your difficulty, as I understand it, is that you would have to get too far south; is that your evidence?

A That is right.

Q Because of the curvature for you to see the engine on the ground?

A That is right.

Q So therefore you have to put a man on top?

A That is right.

Q If rather than putting -- if you stood on one of those cars that are stopped on the mill spur, and you say there are always cars stopped there on the westerly end of the mill spur; is that right?

A That is right.

Q Say you stood up on top there?

A There are flat cars with loads of lumber and you cannot get up on them.

Q There are always loads?

A They are loaded flat cars with lumber.

Q Every time you make a set-out at Wardner there are always cars there?

A Always cars there.

Q You are saying for that reason you cannot get up on top of them?

A That is right.

Q The only way you can do this is to have three men in the move, two on top with you on the ground on the north side of the main line?

A That is right.

Q That is with your engine pointed east?

A That is right.

Q With your engine pointed west, if your engine was pointed west and you were going to make a move like this --

A We usually have no work to do with the engine pointed or headed west.

Q What about this doubling, backing in; say you pulled them in; could you stop, witness, west of the switch at the other end of the yard?

A There is always cars in this track.

Q Are tracks 1, 2 and 3 always filled?

A No. 1 is the siding or passing track.

Q It would not be filled?

A No, sir.

Q Follow me in this. If you stopped west of the switch at the west end of Wardner and you are going to take 20 cars off the head end; that is the move, is it?

A That is the move we are making, we are taking 20 cars off the head end at Wardner.

THE CHAIRMAN: Moving east?

BY MR. SINCLAIR:

Q And you bring them out --

MR. LEWIS: Is that the switch
just west of the wye?

MR. SINCLAIR: Yes.

BY MR. SINCLAIR:

Q You are to cut off your 20 so you pull
them onto Track No. 2; can you do that?

A No, sir.

Q Why?

A Cars in there.

Q Cars are in 2 from one end to the other?

A No, sir.

Q Where are the cars in No. 2 track?

A On No. 2 track it wouldn't matter
whether they are on the east end or the
west end. If you are heading in on top
of them then you have them on the nose.
You don't head in on top of cars with a
set-off.

Q I am not going to put your engine between
the cars. You come in here and pull
your cars down. Then I suggest to you
that with your engine headed east you
back them around the wye, leaving them
on the tail of the wye; can you do that?

A No, sir.

Q Why not?

A The tail of the wye holds only about
four cars.

Q This map is again out of kilter. That is right, is it not?

A That is right.

Q I have never been here, witness, but I have been told by the company that there is no difficulty in setting off cars here when you are eastbound without using the fireman. Why they say that I do not know.

A I would be glad to take you out there and show you.

Q You would be glad to know you could put them off by giving signals direct to the engineman, would you?

A Pardon?

Q You would be glad to know you could set them off by giving signals direct to the engineman?

A I would be glad to show you that it cannot be any other way than by giving them to the fireman.

Q I am saying that if you could be shown it could be given to the engineman you would be glad to have that shown to you?

A Yes, I would be glad if somebody showed me how that was done.

Q You are very knowledgeable of the Kootenay territory. Have you ever considered the use of radios in giving signals where the curvature is bad?

A No, sir.

Q You know they use the radio at Kingsgate and Yahk?

A I have heard so.

Q You know they are also testing radios right now up at Brilliant?

A I don't know that, sir.

Q You know with radio you can signal directly to the engineman no matter where you stand?

A I presume, but I have never seen one work.

Q If you had radios that would eliminate any problem about placing men and giving signals direct to the engineman, would it not?

A I could not tell you until I have tried them, until I know whether they work or not, and how they operate.

Q There is another way of making these various moves. I wonder if you have thought of this. You have two road switchers?

A Right.

Q They operate back to back?

A That is right.

Q So that you don't have to turn them?

A Yes.

Q And so that you have a set of controls on each side?

A They are sometimes hooked up that way.

- Q One on the south side and one on the north side; is that correct?
- A That is right; I have seen them hooked up that way.
- Q They are hooked up that way and if you changed controls you would have no difficulty. You would have the engineman on the right side in that case and that would take care of all these difficulties you have been speaking about?
- A Most of them, yes; if he switched every time except when we are on a curve, and then back again; he couldn't switch fast enough I don't think.
- Q You don't think he could switch fast enough?
- A No, it would take a long time to change from one to the other.
- Q You have not your air connected up when you are doing this switching?
- A No, but they have to change their controls over.
- Q How long do you think it takes?
- A At Kimberley we have gone up there and changed over and it took 10 to 15 minutes.
- Q I suggest to you that you can change the controls as fast as you can walk from one unit to the other?
- A I have no idea except what I have seen in practice.

Q They were taking their time?

A No, I wouldn't say that. They are in a hurry to get home.

Q Have you ever suggested to any man you were working with that he use one or other of the unit controls so that you could give the signals to him?

A No, sir.

Q At pretty nearly all these places there are wyes. Have you ever made use of those wyes to turn your engine to make switches?

A No, sir.

MR. SINCLAIR: That is all,

Mr. Chairman.

--

--

--

BY MR. LEWIS:

- Q I will take the last one first, Mr. Brunner. Mr. Sinclair said, and he is probably right, that at nearly all these places there are "Y's". Just to get it straight, is there a "Y" at Cranbrook also?
- A Pardon?
- Q Is there a "Y" at Cranbrook?
- A No, sir.
- Q That is Exhibit 230. Exhibit 231 at Yahk, is there a "Y"?
- A Yes, sir, but the tail of the "Y" is used as a loading platform for lumber and it is full of lumber cars.
- Q Exhibit 232 at Creston, is there a "Y" there?
- A No, sir.
- Q Exhibit 233 at Procter, is there a "Y" there?
- A Yes sir, but it is a considerable distance from our work.
- Q On the sketch it is shown at the extreme west end?
- A The extreme west end of the yard, yes sir.
- Q Exhibit 234 at Wardner, there is a "Y" there. We were just discussing it.
- A And that is used considerably to store cars in now.
- Q Exhibit 235 at Fernie, is there a "Y" there?
- A Yes, sir.
- Q Where is that situated?
- A East of the yard.

MR. SINCLAIR: Right below "B" on the plan. It is not shown.

BY MR. LEWIS:

- Q Right below "B" at the east end of the yard?
Is that right, on the sketch, 235?
- A Just east of the yard anyhow.
- Q All right. What about Michel?
- A Michel, there is no "Y" there.
- Q Pardon?
- A There is no "Y" at Michel.
- Q Exhibit 237, Golden, is there a "Y" there?
- A Yes, there is a "Y" there.
- Q It is south of the bunch of tracks that we have on the sketch, south of the south passing track?
- A That is right, sir.
- Q Exhibit 238, Macleod, is there a "Y" there -- oh, that is not yours.
- A There is a "Y" there, though.
- Q Exhibit 237 is where you finish. Mr. Sinclair suggests that it might be useful for the Commission to have this information. Do you know whether there is a turntable at any of the places where there is not a "Y"?
- A There is a turntable at Michel, sir.
- Q And at Cranbrook?
- A A turntable at Cranbrook.
- Q You can turn your engine on the turntable as well as on the "Y", I suppose?
- A Yes, sir.
- Q Are they any distance from where you do your

work?

A No sir, at Michel -- at Cranbrook, of course, you have to go to the shops to turn. At Michel it is right east of the station just across from the switch that leads into the top yard where it says 1, 2, 2 $\frac{1}{2}$, just opposite that is the turn-table.

Q Now, if you will go with me for a moment to Exhibit 232 at Creston, the fruit spur and the mill spur. You probably have it in mind. You agreed with Mr. Sinclair, if I understood it correctly, that in spotting cars in either one of those spurs, either the mill spur or the fruit spur, when you are shoving cars in to spot them, that if you had a man on top of the first car behind the engine and another man --

MR. SINCLAIR: In front.

BY MR. LEWIS:

Q It would be in front of the engine, on the car next to the engine, on the first car next to the engine, and another man on top of another car farther in and a third man on the ground that you could then relay the signals to the engineer?

A To do the actual spotting but not to do the switching before you go and do your spotting.

Q For the moment let us deal with the spotting, if that is what you dealt with before, Mr. Brunner. I understood you to say you have not done it that way and I was going to ask you,

Mr. Brunner, whether there is any reason why you should not do it that way, just the spotting, having two men on top and one on the ground as Mr. Sinclair indicated. You said you had not done it that way. I think the Commission would be interested in knowing whether there is any reason why you could not or should not do it that way?

A Well, as I have said to Mr. Sinclair before -- he talks about "impossible" -- it is not efficient to do it that way.

Q Why, Mr. Brunner?

A We have one man on top. The other man blocks the car and pulls the pin.

Q Where is the third man?

A The third man is at the curve to get the signal to the fireman. He is on top of there and the other man is putting the brake on and the other man pulls the pin at the spots.

Q Under Mr. Sinclair's way you would have two men on top of the cars and I suppose you are the one who is on the ground?

A Yes.

Q Would that create any difficulties or delays or anything?

A No, it would not be -- the actual spotting could be done that way.

Q And who would tie the car down?

A The man on top that is near me.

Q He would be one of the signal passers as well?

A As we go in, yes sir.

Q And he could put the brake on as well?

A That is right.

Q Then you said you could do it that way for the spotting but not for the switching before you get to the spotting?

A That is right.

MR. SINCLAIR: He did not say that to me.

THE CHAIRMAN: He said it just now.

BY MR. LEWIS:

Q Why not, Mr. Brunner?

A In switching we cut off the cars and the man who is riding the car has disappeared from view then and I am the only one left there to do the switching. He rides the car down into the track and ties a brake on it and comes back and catches another one and therefore we cannot all be up on top. He is on top doing his work as a brakeman.

Q That would be on the car that is being cut off?

A That is right, on the cut we are cutting off and he will take it down to make room for whatever we are going to let run on top of it afterwards and he will tie that down good, come back and catch the next cut into the track and then he will just watch the cars that they don't go too fast after that, but after we get them all together and go in to make the spot it can be done the other way.

THE CHAIRMAN: I am not sure I follow what the witness is speaking about, Mr. Lewis.

BY MR. LEWIS:

Q Instead of my trying to explain what I understood you to say, would you pick up Exhibit 232 and have it before you?

A Yes, I have it here.

Q Looking at that exhibit, explain to the Commission and show where you are going on it, exactly what you mean by the switching, where you are cutting off cars, putting them on a track and someone has to ride them to tie them down and then you do it a second time and so on. Will you do it looking at that exhibit?

A I will try. I have now got the cars on the front of the engine after having made the drop that I explained before. Is that what you would like me to follow up?

A Yes?

BY THE CHAIRMAN:

Q You are talking about handling the mill spur?

A We are doing the switching, sir, preparing for them going into the mill spur and into the fruit spur.

Q What cars do you speak about as having on the front of the engine, cars for both the mill spur and the fruit spur?

A Yes.

Q That would be eight cars, or are you speaking about cars that you have taken out of the

mill spur or out of the fruit spur or what?

A I am now talking about -- we will use a figure of eight cars that we have brought with us for Creston and we have brought them up from "B" and come up to "C" and made this drop of the cars at switch "C" into the fruit spur. We have come back with our engine and nosed onto these cars. According to the switch list we have cars to cut in at the mill spur so having the cars that we have dropped, being mill spur cars, we will say, being next to the engine, when we couple on we couple on to them cars, pull them up clear of the track, of the switch "D" going into the mill spur and spot them cars there, cut off our engine, come back and go into track "D" into the spur, couple up all those cars in this spur, pull them out and shove down and couple on to these four cars on the passing track that we have left there and pull back again and shove in and then we are doing this spotting.

We will spot the cars and replace the other cars where they were before we had moved them as they were probably not finished loading and we put them back to where we got them. That will be the switching for the mill spur. .

Now we have the fruit spur to do and

we have to cut them behind express reefers. Well, we will go to the last door on the west end of the fruit spur, these cars we have for the fruit spur.

So we pull everything out of the fruit spur, back out to "C", let the cars go down the passing track and stop them clear of "C", throw the two refrigerator cars or the cars we have for the fruit spur, throw them into the fruit spur. A man will ride these cars as we do the switching as they run quite freely.

We take our engine and couple on to the cars in the passing track, pull back over "C" again, shove in and couple on to those cars that we have brought in for to be spotted and shove in and spot. The actual spotting -- we have all the cars together then and we just shove in and spot them at the doors that they are required, ending up by usually having some to spot at the pea mill as well. There is two doors at the pea mill and they usually have two cars on spot there and we spot them out.

BY MR. LEWIS:

Q Now, Mr. Brunner, there is something that is just a little of a mystery to me. I have not heard it before. Mr. Sinclair took you through the various exhibits and asked you whether you

had taken part in the actual switching at the various places covered by Exhibits 230 to 237 inclusive and said to you that you had special trips in mind and you said yes, you had?

A Yes.

Q What were those special trips you had in mind when you told Mr. Sinclair whether or not you had taken part in the switching? Were there any particular trips or trip you had in mind when you described the moves?

A No, not any one particular trip, sir.

Q Well, I misunderstood then. I thought it was some special trips you had in mind when you were saying whether you did participate or did not participate in the switching?

A Well, I have taken a trip in my mind, yes, just as knowing when I did do these things.

Q Then this is what it means, and you correct me if I am wrong. I just want to understand. In Exhibit 230, for example, at Cranbrook and Exhibit 233 at Procter and Exhibit 235 at Fernie you do not as a rule actually take part in the switching itself?

A No, sir.

Q And in the others you do as a rule take part?

A Yes, sir.

Q I see now. I thought there were some special trips?

A No, sir.

A Now, will you look for a moment at Exhibit 237 again, please. That is Golden. At one point Mr. Sinclair suggested to you -- I forget now whether it is a pull-out or whatever it is -- that you stopped the back of your movement at the east switch of the yard which would be just west of the crossing. Do you remember that? I think it was with 20 cars and you pulled the cars out so that the back of your last car was just west of the highway clear of that switch. Do you recall Mr. Sinclair suggesting that to you?

A No sir, I just don't quite follow you, sir.

Q Well, perhaps I did not follow it. Not with the 54 cars but at an earlier point he asked you whether if you just took a cut of 20 cars and pulled them out on the north passing track I think it was, or wherever you came out of, so that the rear end of your movement was just west of the highway --

A Yes.

Q Do you remember that?

A Yes.

Q If you did that would you be able to do your switching within the five minutes that is permitted by the rule regarding the blocking of a crossing?

A No, sir.

Q You do know the rule I am referring to. I am referring to the paragraph of rule 103 at page 59 of Exhibit 27 which says:

"No part of a car or engine may be allowed to occupy any part of a public crossing at grade for a longer period than five minutes" --

HON. MR. MARTINEAU: Has that ever been put into force, Mr. Lewis?

MR. SINCLAIR: The out is the word occupy, sir. We have had cases, yes.

THE CHAIRMAN: That means stopped, I suppose.

MR. SINCLAIR: That is right.

THE CHAIRMAN: "Occupied" means stopped.

MR. LEWIS: Yes, I would interpret it to mean standing there for five minutes.

MR. SINCLAIR: Without moving.

MR. LEWIS: Then, we come to the second part. I do not know whether my friend argued it in court. The second part of the paragraph says:

"...and a public crossing at grade must not be obstructed by switching operations for more than five minutes at a time."

I do not think my learned friend can quite interpret that as meaning standing, sir. Can you?

MR. SINCLAIR: You do not think so.

MR. LEWIS: No, I do not think so. I would like to hear my learned friend try.

BY MR. LEWIS:

Q Can you do switching in such a way as not to obstruct this highway for more than five minutes?

A No, sir, not unless we pull up over the crossing and let the cars go and then we make the other move.

BY THE CHAIRMAN:

Q Does that apply when you have only 18 cars?

BY MR. LEWIS:

Q If you had 18 cars would you be over the crossing, is really what the chairman means.

THE CHAIRMAN: He has already said that with 18 cars he would be over the crossing and he could not position his men so as to be able to give the signals on the engineer's side.

Therefore, I would like to know whether he has to stand on that crossing and obstruct it for more than five minutes. It is just a matter of getting the cars in that position and having them back up. I do not know why one stands for three minutes.

BY MR. LEWIS:

Q Do you recall your answering the Chairman that a man stationed on the platform at the station could see five cars east and a certain number of cars west so that you had a cut of 18 cars, all of which would be east of the highway?

A Yes.

THE CHAIRMAN: No, that is not what I had in mind. They would all be east of that switch.

BY MR. LEWIS:

Q East of the switch?

A East of the switch.

Q Would they all be east of the highway, or --

A They would still be on the highway, sir.

Q If you had those 18 cars over could you not do the switching within the five minutes, pull out and pull back again?

A Not the two movements. That movement going over and the movement to stop and the movement coming back I think would take more than five minutes, but it would be very close. You might be able to make it in five minutes.

Q Can you do this, Mr. Brunner?

- A I really have never timed a movement like that, sir.
- Q The Commission ought to have your experience which is a very great deal. If you pull up east of the crossing and then stop and let the 2, 3, 4, 5, or 10 cars that have been waiting cross and then back down again --
- A It has been our custom to always pull up over that crossing, especially in the summer time when the traffic is heavy, and let the cars go and then make our next move.
- Q Back?
- A That is right.
- Q Would it cause very much delay?
- A Well, it causes little but it keeps us out of trouble.
- Q Let me refer to one of the suggestions that Mr. Sinclair made to you, Mr. Brunner, about doing it at the other end of the yard, at the west end of the yard, of Exhibit 237. Mention was made by him, and I think by you of some signals west of the last switch there. Are they block signals?
- A Yes.
- Q I think Mr. Sinclair suggested to you that there was another switch further west and you said you thought there was but you yourself did not know.
- A Another signal, I think is what Mr. Sinclair said.
- Q Another signal. I beg your pardon. I am

looking at rule 515. Perhaps I have the wrong number; Rule 515, on page 144 of Exhibit 27, Mr. Brunner, reads:

"A train or engine having passed beyond the limits of a block must not back into that block except under protection."

Would that rule create any difficulty in doing the switching on the west side, going into the block and having to come through it again, or would it not?

A I would say not sir.

MR. SINCLAIR: You say this would prohibit it.

MR. LEWIS: No, he says it would not create any difficulty.

BY MR. LEWIS:

Q That is what you said?

A That is right.

MR. LEWIS: I think that is all I have Mr. Chairman.

MR. CHAIRMAN: That is all; we will adjourn until 10.00 in the morning.

-- The Commission adjourned at 4.35 p.m. until 10.00 a.m. Wednesday, June 5, 1957.

ROYAL COMMISSION ON EMPLOYMENT OF FIREMEN
ON DIESEL LOCOMOTIVES IN FREIGHT AND YARD
SERVICE ON THE CANADIAN PACIFIC RAILWAY

48

PROCEEDINGS

DATE: June 5, 1957

PLACE: Ottawa, Ont.

PAGES: 6766 - 6917

VOLUME: 48

E. L. FEATHERSTON
SHORTHAND REPORTER
241 MANOR AVENUE
ROCKCLIFFE PARK
OTTAWA, CANADA

Mr. Hughes

ERRATA

Please make the following corrections
in the volumes and on the pages as indicated.

VOLUME 39

<u>Page</u>	<u>Line</u>	<u>Now Reads</u>	<u>Should Read</u>
5497	16-17	MR. SINCLAIR: I can see that for myself, Mr. Sloan.	MR. SINCLAIR: I can say that for myself, Mr. Sloan.

Witnesses

BARNES, Wilbur James	
Exam. by Mr. Lewis	6768
Exam. by Mr. Sinclair	6846
Exam. by Mr. Lewis	6860
INGLIS, Clayton Greer	
Exam. by Mr. Lewis	6862
Exam. by Mr. Sinclair	6865
FOSTER, Eric Ivan	
Exam. by Mr. Lewis	6868
BARR, Denzil Cecil	
Exam. by Mr. Lewis	6872
Exam. by Mr. Sinclair	6877
Exam. by Mr. Lewis	6881
Exam. by Mr. Sinclair	6884
LANCASTER, Donald Day	
Exam. by Mr. Lewis	6888

Exhibits

No. 241 - Defects involving locomotives	
other than steam	6884

Feather
ZA

A-1

- 6767 -

ROYAL COMMISSION ON EMPLOYMENT OF
FIREMEN ON DIESEL LOCOMOTIVES IN
FREIGHT AND YARD SERVICE ON THE
CANADIAN PACIFIC RAILWAY

Proceedings of public
hearing held at Ottawa,
Ontario, Wednesday,
June 5, 1957

PRESENT:

Hon. R. L. Kellock,	Chairman
Hon. C. C. McLaurin,	Member
Hon. Jean Martineau,	Member
Douglas M. Fraser,	Secretary
A. R. Winship,	Asst. Secretary

APPEARANCES:

D. W. Mundell, Q.C.,	Representing the
C. J. A. Hughes, Q.C.,	Commission
I. D. Sinclair,	Representing the
Allan Findlay,	Canadian Pacific Railway Company
David Lewis,	Representing the Brotherhood of Locomotive Firemen and Enginemen

Wednesday,
June 5, 1957.

48th DAY

MORNING SESSION

---The Commission resumed at 10.00 a.m.

MR. LEWIS: My next witness will be Mr. Wilbur James Barnes.

WILBUR JAMES BARNES, sworn.

EXAMINED BY MR. LEWIS:

Q I understand that until December 31, 1956, you were Supervising Mechanical Engineer for the Interstate Commerce Commission of the United States?

A I was.

Q And that you retired on the date I mentioned and are now in law practice in Washington, District of Columbia?

A I am in professional practice as consulting engineer and attorney.

Q You informed me that in 1915 you graduated as a mechanical engineer from Cornell University?

A I did.

Q And that in 1930 you obtained a Bachelor of Law degree from the George Washington University?

A That is correct.

Q And that in 1931 you were admitted as a member of the bar of the District of Columbia?

A That is correct.

Q You are now a registered professional engineer in the District of Columbia and a member of the American Society of Mechanical Engineers?

A Yes, sir.

Q Then as to your experience relevant to this inquiry. You told me that in 1908 you started with the Erie Railroad as a machinist's helper and worked in that capacity until 1913?

A I started in 1908 as a machinist's helper and worked during the summers until 1913, with the exception of one year, at which time I worked as a machinist with the now defunct Emerson Engine Company of Alexandria, Virginia. My ratings were machinist's helper, handy man and special apprentice.

Q Then in 1940, the summer of that year, you worked at the central generating station of the Detroit Edison Company?

A That is correct.

Q From 1915 to 1917, if my notes are correct, you joined the Baltimore and Ohio Railroad as a student employee and then as a power plant inspector in the office of the electrical engineer?

A I was with the Operating Vice-President as a student employee and then power plant inspector with the electrical engineer, and subsequently assistant engineer.

Q In 1917 and 1918 you were engaged as efficiency engineer with the Leehigh

Navigation and Electrical Company?

A That is correct.

Q Which is now the Pennsylvania Power and Light Company?

A Yes, sir.

Q Then from 1918 to 1920 you were engineer in the power plants of the Baltimore and Ohio Railroad at Cincinnati?

A That was until the spring of 1921. I had charge of all terminal power plants on the Western Lines of the Baltimore and Ohio Railroad.

Q And from 1921, as you say, and according to my notes, until 1923 you were Assistant Engineer and latterly Engineer of Equipment with the United States Railroad Administration at Washington?

A That is correct. My work was entirely in the field during my connections with the administration.

Q What was the nature of that work?

A It was the investigation of claims filed by the carriers against the federal government for alleged deterioration of property occurring during the period of federal control.

Q During the war?

A Yes, during the first world war.

Q Then from 1923 to 1926, again if my notes are correct, you were Mechanical

Engineer with the United States Naval Engineering and Experimental Station at Annapolis?

A Annapolis, Maryland.

Q And in that job you had experience with various marine equipment?

A The work in that capacity consisted of examination, testing and preparation of reports covering all types of marine power and equipment including steam and diesel.

Q Then on June 12, 1926, Mr. Barnes, you started with the Interstate Commerce Commission as Mechanical Electrical Engineer with the Bureau of Locomotive Inspection?

A Yes, sir.

Q That was the title of your job, which was later changed to Safety Engineer; is that right?

A Yes.

Q From 1938 on you were concerned for a time with legal and engineering matters arising out of the Locomotive Inspection Act?

A Yes.

Q And from 1938 on you had a great deal to do with the preparation of accident reports?

A Yes.

Q In 1948 you were promoted to the position of Supervisory Mechanical Engineer with the Interstate Commerce Commission, which position you held until you retired at the end of last year?

A That is correct.

Q In that capacity you supervised the inspectors in the field and supervised the assembly of data and the preparing of drafts of annual reports of the Director of the Bureau of Locomotive Inspection; is that right?

A That is correct, with the exception that the supervision of inspectors in the field, the administrative supervision rested with the Director of Locomotive Inspection. My work was auxiliary to that. I was also responsible for engineering and legal matters incidental to the administration of the Locomotive Inspection Act.

MR. LEWIS: Mr. Chairman, this may not be entirely relevant in qualifying the witness, but I think it is of interest.

BY MR. LEWIS:

Q While with the Interstate Commerce Commission you were chairman of the board of the United States Civil Service

Examiners for the Interstate Commerce Commission?

A That is correct.

Q And in that capacity you examined papers written by people applying for the position of locomotive inspector?

A I worked with the Director of Locomotive Inspection in connection with the preparation of examinations. After the examinations were held the written submissions were passed to us by the Civil Service Commission. My committee examined all the written submissions of applicants for the position of inspector of locomotives. We graded the papers and set up a registry of eligibles.

Q Then you have held these voluntary positions: President of the Interstate Commerce Commission Relief Association; member of the Board of Directors of the Interstate Commerce Commission Credit Union; and you were the employee member of the Board of Review for Efficiency Ratings of the Interstate Commerce Commission?

A Yes.

Q Now, Mr. Barnes, with your long experience, particularly with the Interstate Commerce Commission, would you give this Commission the benefit of

a very brief review of the development of diesel power in the United States on the railroads?

A I should be glad to, but in this connection I should like to emphasize that I am speaking as an individual based on the experience gained and any testimony which I present should not be construed as representing directly or by inference the views of the Interstate Commerce Commission. I wish to make that point clear, that this is not an official presentation of the Commission. May I have your question again, Mr. Lewis?

Q I am asking you whether you would give the Commission a brief review of the development of diesel power in the United States on the railroads?

A The first diesel locomotive was placed in service about 1925 or 1926. That was the 2600. It was a car body type. The subsequent diesel power that followed that construction was not nearly so powerful as the diesels of today. They were composed largely of diesel engines installed in the cab type or car body type locomotive.

That condition continued until along about the middle or latter part of the 1930's, at which time the hooded

locomotive began to be placed in service. The more powerful locomotives of the car body type continued until the late 1940's or early 1950's, at which time the hooded type diesel was the predominant type purchased by the carriers.

--

--

--

- Q And development continued evenly to this day or was there any point at which it took a very impressive spurt, the development of diesel power?
- A During -- I kept a very careful record of diesels placed in service on American railroads and the curve was fairly flat until the mid forties at which time there was practically an explosive revolution in motive power. The number of diesels placed in service accelerated very rapidly and at the present time we have a very high percentage of diesel power in operation. Many roads are entirely dieselized. The number of steam locomotives has fallen off. There were very few placed in service in recent years.
- Q Now, we have heard quite a bit about this but briefly again, Mr. Barnes, it may be of value to the Commission to have your views as to the reasons for the superiority of diesel power over steam power on the railroads?
- A The reasons, I think, are purely economic, based upon the fact that diesel power has a very high factor of use. Steam locomotives require much greater servicing. The ability to operate over long distances is restricted.
- A steam locomotive can run over a division or possibly two or three divisions and then it must be removed from the train, placed in the roundhouse for servicing.

That servicing consists of fire cleaning, refueling, necessary running repairs by the roundhouse forces. All of these operations take time.

A diesel can start from a terminal and run perhaps a thousand miles or more in regular service. Some of the runs on the western lines go farther than that. They go perhaps from Chicago to the west coast on certain trains. The time required for refueling is only a small percentage of that required for refueling, cleaning fires and so forth on a steam locomotive.

THE CHAIRMAN: I think we have been told here that diesel locomotives go from Montreal to Vancouver without change. Am I right?

MR. SINCLAIR: Yes, sir.

THE WITNESS: I would imagine that would be correct, sir.

THE CHAIRMAN: It would be farther than from Chicago to the west, wouldn't it?

THE WITNESS: Yes. The reason for that distinction is the fact that due to operating characteristics Chicago and St. Louis are change points between eastern and western operations and ordinarily power runs to those two points, passengers change and take connecting lines to the west coast.

BY MR. LEWIS:

Q You are saying that the greater use factor of the diesel makes it economically superior to the steam engine?

A That is correct. Maintenance can be largely of a continuous nature whereas with steam it is necessary to make machinery and boiler repairs which take time.

Q From your studies, Mr. Barnes, would you be able to indicate roughly -- I appreciate it would be rough if you can indicate it -- how many steam engines are displaced by diesel engines, that kind of ratio?

A This would be largely approximate depending upon local conditions but one diesel has displaced anywhere from perhaps one and three-quarters to three steam locomotives. The substitution of one diesel in yard switching service in some instances will take out of service three steam yard switchers. One diesel will supplant three steam in that type of service, and in road service because of the higher use factor a diesel may displace a lower number of steam locomotives.

Q Mr. Barnes, perhaps that could be illustrated somewhat if you could give the Commission the number of diesels and steam engines say in 1927 and the number of diesels and steam engines in 1956 in the United States?

A Based upon our studies of the number of locomotives --

Q You said "our studies". You mean studies of the Interstate Commerce Commission?

A Yes, the public records of the ommission. What I am introducing in the record will be entirely from the public record. I cannot ethically use any information which is not public.

Q Right.

A In 1927 there were filed with the commission reports for 67,835 steam locomotives and 951 diesel units.

Q Making a total --

A A total of 68,786. In 1956 reports were filed for 5,875 steam locomotives, 29,405 diesel units, a total of 35,280 as compared with 68,786, which is a ratio of slightly less than two to one.

Q And I suppose one can take judicial notice of the fact that the amount carried by the railroads in 1956 would or would not be greater than the amount carried by the railroads in 1927, or do you know?

A I believe that it would. I cannot testify to that fact but perhaps the Commission can take judicial notice of reports of the Bureau of Statistics, statistical reports of the Interstate Commerce Commission showing the ton

miles in freight and passenger miles in passenger.

MR. SINCLAIR: What do they show?

BY MR. LEWIS:

Q Do you know what they show?

A I would not like to testify directly. My impression is that there has been an increase in ton mileage and perhaps a slight falling off in passenger miles but I am not in a position to make a definite statement along those lines.

Q But that can be found in the publications?

A That can be found.

Q And I will look that up or have it looked up. Now, in your experience dealing with accident reports and the like, Mr. Barnes -- by the way, first, what accidents are reported to the Interstate Commerce Commission?

A Accidents involving locomotives which result in casualties are reported and are investigated by a locomotive -- inspectors of locomotives. The reports of inspectors of locomotives are filed with the director of locomotive inspection.

It was part of my duty during the time I was with the commission to review all of these accident reports and digest the information contained therein. Accident reports which were approved for publication

by the commission are public information. Accident reports which were not approved for publication have been held by the commission to be confidential and the results cannot be officially introduced into the record.

BY THE CHAIRMAN:

Q Are these accidents involving locomotives distinct from accidents involving other parts of the train? Is that what is meant?

A Collisions, derailments and other road accidents are investigated by the bureau, by the former bureau of railway safety which is now a section of the bureau of safety in service. Those reports are in the nature of operating investigations rather than mechanical investigations of locomotives.

Q I do not think that is the question that I have in mind.

MR. LEWIS: No.

BY MR. LEWIS:

Q The Chairman asked you whether there is a distinction made in the reports of the bureau of locomotive inspection or the director of locomotive inspection between accidents caused by the locomotives and accidents caused by, or involving rather than caused by -- accidents involving locomotives or accidents involving other parts of the train?

A The accidents investigated by the bureau

of locomotive inspection are under section 8 of the Locomotive Boiler Act which provides:

"That in the case of accident resulting from failure from any cause of a locomotive boiler or its appurtenances" --

A subsequent amendment to the Act extended the investigation to all types of locomotives.

-- resulting in serious injury or death to one or more persons, a statement forthwith must be made in writing of the fact of such accident, by the carrier owning or operating said locomotive, to the director of locomotive inspection. Whereupon the facts concerning such accident shall be investigated by the director of locomotive inspection or one of his assistants, or such inspector as the director of locomotive inspection may designate for that purpose. And where the locomotive is disabled to the extent that it cannot be run by its own steam, the part or parts affected by the said accident shall be preserved by said carrier intact, so far as possible without hindrance or interference to

traffic, until after said inspection. The director of locomotive inspection or an assistant or the designated inspector making the investigation shall examine or cause to be examined thoroughly the boiler or part affected, making full and detailed report of the cause of the accident to the director of locomotive inspection.

The Interstate Commerce Commission may at any time call upon the director of locomotive inspection for a report of any accident embraced in this section, and upon receipt of said report, if it deems it to the public interest, make reports of such investigations, stating the cause of accident, together with such recommendations as it deems proper. Such reports shall be made public in such manner as the commission deems proper. Neither said report nor any report of said investigation nor any part thereof shall be admitted as evidence or used for any purpose in any suit or action for damages growing out of any matter mentioned in said report or investigation."

THE CHAIRMAN: Mr. Lewis, my attention was only caught by the witness' language, accidents involving locomotives. What the witness has said seems to be confined to boiler explosions on steam engines, is it not, or does it involve other casualties on any kind of locomotives?

BY MR. LEWIS:

Q Perhaps I can shorten it. I notice, for example, in Exhibit 135, which is the annual report of the director of locomotive inspection for 1956, and I noticed the same was true in Exhibit 134 which is the report for 1955 and one or two other exhibits, that the section on accidents starts:

"Seventy-three accidents occurred in connection with all types of locomotives and resulted in four deaths and 79 injuries."

Would it be right to conclude from that that the bureau of locomotive inspection is concerned with and reports on accidents caused by or in which were involved locomotives of every type?

A That is correct.

Q Any other accidents that may occur from derailment of a car through a defect in the rolling stock or anything like that, that would not be this bureau's function?

A That would not be, no. Now, I referred to the fact that the amendment to the act extended the authority to all types of locomotives. This amendment is dated June 7, 1924, 43 Stat. L., 659, and reads as follows:

"Section 2. That it shall be unlawful for any carrier to use or permit to be used on its line any locomotive unless said locomotive, its boiler, tender, and all parts and appurtenances thereof are in proper condition and safe to operate in the service to which the same are put,..."

And so forth.

That amendment has been extended to all types of locomotives used on the lines of a carrier, regardless of the source of power used for propulsion.

Q But your accident investigations and reports, are concerned with those in which locomotives are involved?

A Yes, all types.

Q Not any other type of train accident?

A No.

Q That may be caused by some other part of the train?

A That is correct, Mr. Lewis.

- Q I also want to try and clear up, if you can help us, one little matter. I have not looked at the transcript, Mr. Chairman, but I remember you, sir, asking what ^{was} the meaning of the words "In any of the reports". I am just looking at Exhibit 135 where the number of defects is given and the analysis of the defects. In Exhibit 135 it occurs on pages 16 and 17 of the reports. On pages 16 and 17 one of the statistics given is for locomotives reported, and we were wondering what the word "reported" means there. Is it all the locomotives that the railroads have in service, or do they report only a part of them, or what is the significance of the term?
- A The term "locomotives reported" applies to locomotives for which reports are filed with the Interstate Commerce Commission, and that covers all locomotives used on the lines of a carrier which are subject to the act.
- Q Are there locomotives which are not subject to the act?
- A Yes, there are some locomotives which are not reported such as shop power -- in the vernacular we used to call them shop goats, and work equipment.
- Q Work equipment that is used for work on the road?
- A Yes; that includes section cars, wreck equipment, and items of that nature. In that connection,

W.J.Barnes

Mr. Lewis, I wish to point out in the case of Jackson vs. the Baltimore and Ohio Railroad, which was recently decided by the supreme court, within the last few months -- it started in the lower court, was carried through the Court of Appeals and then to the supreme court -- the decision in that case seems to hold that section cars, under certain conditions, will be considered locomotives. We never considered these section cars as locomotives prior to this time. What the subsequent developments will be I cannot say at the present time.

Q But as far as these reports are concerned --

A These only cover the locomotive used on the lines of a carrier. They include both the locomotives ~~owned~~ by the carrier and industrial locomotives which are used on those lines.

Q And owned by the industry?

A And owned by the industry.

Q But used on those lines.

A Used on those lines such as a coal company, an oil company, a soap manufacturing establishment or something of that nature.

Q From your experience in analyzing and drafting reports of accidents, what, in your experience have been the main sources of accidents arising from diesel locomotives?

A There are three general types of accidents which have caused much property damage, and two of them resulted in major casualties; in the third

W. J. Barnes

the casualties have been lower.

The first type of accident, of which there have been several, have been derailments resulting from locked wheels, locked driving wheels. That locking of the wheels has been caused, I think, in all instances by failure of a traction motor bearing, which locks the motor and its pinion and the pinion prevents the gear on the driving wheel from turning. The wheel slides along the rail resulting, after somewhat of a slide, in a flat spot building up a false flange and subsequent derailment, or spread the switch or strike the frog or something of that nature along the road.

Q That is the first one?

A That is the first one. The second one which has been quite prevalent has been crank case explosion. In this type of accident the casualties have been relatively small, one, two, three men, or something of that nature, but there has been damage to equipment. There have been a number of reports issued on crank case explosions.

Q The third?

A The third has been broken wheels. There have been serious accidents resulting from a diesel wheel which fails in service and throws the train into the ditch. There is a fourth type of accident in this connection which we may dwell

upon later on, and it is fires upon locomotives.
These fires --

BY HON. MR. MARTINEAU:

Q Broken wheels?

A Broken wheels.

Q Have they caused derailments?

A Yes, sir.

BY MR. LEWIS:

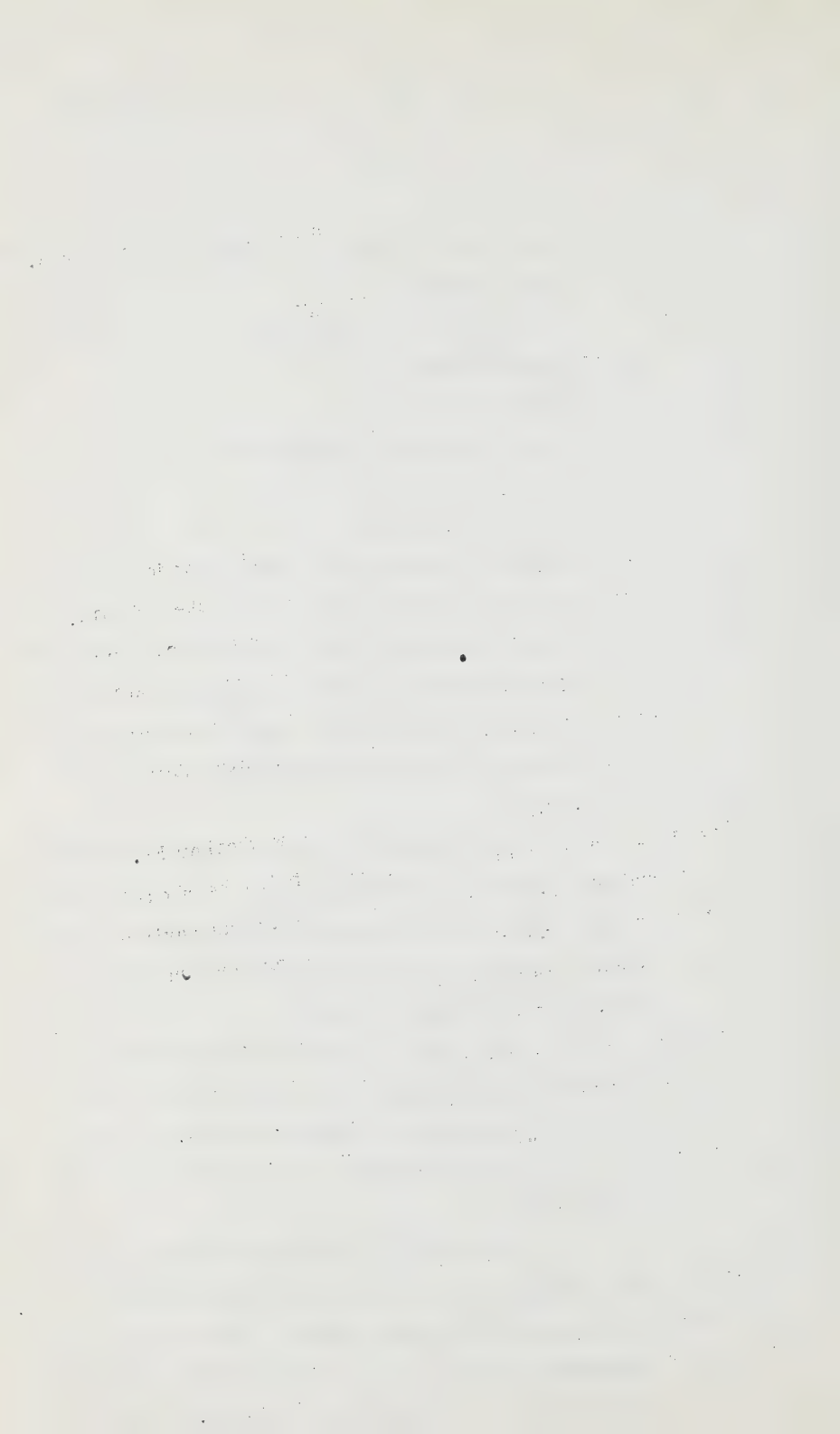
Q Dealing first with the first head of major accidents, derailments, caused by locked wheels. Would you please tell the Commission from your experience as to whether a helper on a deisel engine in road service could or could not be of use in preventing accidents arising from that.

MR. SINCLAIR: I do not know whether Mr. Lewis may have overlooked it, but I think he should first qualify the witness in that regard as having been a man who has ridden locomotives or been on them in a supervisory capacity.

MR. LEWIS: I do not know that that is a necessary qualification but I will be very glad if you will answer my learned friend, Mr. Barnes.

MR. SINCLAIR: I am suggesting it to the Commission.

MR. LEWIS: If the Commission wants it Mr. Barnes will tell them what he has ridden. Personally, with great respect, I do not see the relevance of that, but Mr. Barnes will undoubtedly tell you what his experience has been in that, Mr.



Chairman.

THE WITNESS: My experience has been principally from the administrative standpoint. I have not in recent years done any appreciable shop work or work around the terminals except in a few instances where I felt a personal investigation was necessary; and my testimony will be from the matter of reports, and reports submitted by carriers and the reports submitted by our inspectors. It is, as I say, largely of an administrative nature.

BY MR. LEWIS:

Q When you work with your section of the Interstate Commerce Commission in a supervisory and in other capacities would you have anything to do with the investigation of accidents and their causes.

A Yes, sir. These investigations made by our inspector, the reports of investigations made by our inspectors were all submitted to me for analysis, review and publication where the Interstate Commerce Commission so desired. I was responsible for preparation of all published reports over the past several years.

Q Based on that experience and on your knowledge of engineering and other matters related to this question, may I repeat the question I asked earlier, Mr. Barnes, whether, based on that experience you have any opinion as to the usefulness or otherwise of a helper on a diesel locomotive in road service in avoiding

W.J.Barnes

derailments arising from the locked wheels,
the first cause of major accidents.

MR. SINCLAIR: Again, Mr. Chairman, I do not like to be technical here but I do think you might well ask any lawyer, from reading reports, what he thinks.

MR. LEWIS: Oh!

THE CHAIRMAN: Well, we will have to assess the weight of this, Mr. Sinclair.

MR. LEWIS: Mr. Barnes was not qualified merely as a lawyer.

THE CHAIRMAN: He has told us what his experience is and how he is in a position to say certain things. We will have to weigh all that.

THE WITNESS: This would be a matter of opinion, Mr. Counsel, but my considered opinion is is that a fireman is of material value on a locomotive in connection with investigations of the irregularities of operation, including wheel slip indications. His training and experience is such that he is qualified to determine the cause of indicated irregularities of operation with respect to wheel slips. If there was locked wheels, if the wheel slip indicator shows a locked wheel, it is necessary for a qualified man to determine upon his investigation whether a continuous indication is a fault of some component of the wheel slip indicator system, and if his investigation discloses it is not, then a rolling inspection is required. That is

W.J.Barnes

not necessarily to be made by the fireman, but since he is required, since he is qualified in the one matter, he is eminently well qualified to check the wheel on the rolling inspection. It is a mechanical matter, and mechanical men, I think, are better qualified to deal with mechanical matters. That is purely a considered opinion based upon experience.

Q Now then, Mr. Barnes, the second type of accident resulting in a serious loss of property and some casualties that you mentioned was crankcase explosions. Is there anything that, in your opinion, the fireman or helper could do or be of help in with regard to that cause of accidents?

A Yes, sir. In accordance with his usual patrol duties, he could determine the operation of the diesel engine, a hot engine alarm or a low lube alarm should be investigated, and to do so it is necessary for a man to be at the engine. The crankcase explosion usually results from an overheated part of the mechanism, usually due to some type of lubrication failure. It may be a rag that got into the lube line; it may be a slipped bearing which shuts off the oil supply from the crankshaft to the bearings; it may be due to a broken piston which permits the hot gases of combustion to blow by and raise the temperature of the oil vapour in the crankcase.

These items are often apparent to a properly trained man.

Q In the third cause of accidents you mentioned, broken wheels - I suppose on the locomotive itself?

A Yes.

Q Could the cause of that be detected in any way by anyone?

A They could be found by inspection.

Q What kind of inspection do you mean?

A It would be a visual inspection. I should like to comment upon the practice of inspection upon some railroads, I will not say it is universal in the United States. When a train is stopped at a station for inspection, the car inspectors go up one side checking wheels and brakes on the cars. They come to the locomotive, they go around the locomotive and start on the other side and check the cars on the way down.

Q Do they check the locomotive itself?
These car inspectors?

A The investigations of accidents that have occurred from this cause have shown that there was not a wheel check, a brake check, made by the car inspectors upon the locomotive.

BY THE CHAIRMAN:

Q You mean they should have done it but they did not?

A They did not do a check, but it would have been desirable. Under the rules of the railroad apparently it was not required, Mr. Chairman.

BY MR. LEWIS:

Q Who would be, in that case, relied upon to make an inspection?

A The engine crew are the only men available at a standing inspection to make that, unless shop inspectors from the mechanical department are sent to the terminal.

One accident to which I referred on a locomotive -- would you like to introduce this into evidence?

Q If you have something of interest to the Commission, bring that to their attention.

A This is a published report of an accident which occurred near Muncie, Indiana, on the New York Central Railroad on June 10, 1951. The driving wheel on a diesel-electric locomotive unit broke while the locomotive was hauling a passenger train at a recorded speed of 62 miles an hour. The trailing unit was derailed and also the first eleven cars of the train. Fourteen employees and fifty-nine passengers were injured. The report contains sketches of the broken wheel.

Q The sketches reveal, if I may, Mr. Chairman, as I recall it, that the breakage in the wheel resulted from some little defect in the wheel, is that right?

A Yes, the breakage was a typical fatigue

failure type. Fatigue failure in a mechanical part is spoken of usually amongst railroad men as a progressive type failure. It originates in some small focal point which acts as a stress raiser and gradually extends until the failure occurs.

Q Your point is, as I understand it, Mr. Barnes, if I may, Mr. Chairman, that some of these defects might be discovered by standing visual inspection of the wheels?

A Yes. In this report the testimony of the two car inspectors who examined Train No. 41 at Bellefontaine prior to the accident, and which was corroborated by the general car foreman, was to the effect that the purpose of their inspection was a testing of the air brakes on the entire train and an inspection of journal boxes and wheels under the cars. They check the air brake set on the locomotive units but do not examine locomotive journal boxes or locomotive parts other than making a passing observation.

The recommendation of the Commission in this report is as follows:

"It is recommended that this carrier promptly arrange to have wheels on diesel-electric locomotive units cleaned and carefully inspected at maintenance

"terminals at the end of each trip, and that locomotive units also receive inspection of running gear at all points wherever tests are required to be made."

BY THE CHAIRMAN:

Q Evidently, up to that time, there had been no inspection of locomotive wheels by anybody?

A No, and in this particular case the locomotive was dispatched from Harmon, New York, run through direct to St. Louis, Missouri, received servicing, returned, and then a few hours later was dispatched on a return run to Harmon, which was its maintenance point.

Q And in the meantime there was no inspection at all?

A Inspections such as were made were very fragmentary.

Q Was there an inspection or was there not?

A The investigation showed an inspection during the layover at St. Louis, but nothing aside from air brake tests at intermediate terminal points. Would you care to have this for the Commission?

BY MR. LEWIS:

Q We will keep it in case the Commission wants it, Mr. Barnes, but perhaps you

have told them what there is in it.

Mr. Chairman, I should like, with your permission, to file as Exhibit 241, I think that is the number --

THE CHAIRMAN: I am assuming that is right.

BY MR. LEWIS:

Q A statement of inspections and defects involving locomotives other than steam, compiled from reports of locomotive inspections of the Interstate Commerce Commission and covering the years from 1927 to 1956 inclusive.

EXHIBIT No. 241 -- Statement of inspections and defects involving locomotives other than steam.

BY MR. LEWIS:

Q With Exhibit 241 before you, Mr. Barnes, would you please give the Commission the benefit of your experience on the question as to whether age affects the number of defects on diesel power?

A It definitely does. It has the same effect as age upon any type of delicate equipment. The components of diesels are, to a large extent, electrical in nature. They have the usual electric wiring and many of them have contact points in moving

parts, and in the course of the usual operation a certain amount of wear is bound to occur.

THE CHAIRMAN: Well, I do not think the witness has answered your question, which was, as I understood it, how Exhibit 241 demonstrates this.

BY MR. LEWIS:

Q Yes. Would you now go to the exhibit and inform the Commission how, in your opinion, Exhibit 241 demonstrates what you have just explained?

A If we observe column 2, the number for which reports were filed, and column 4, the number of locomotive units found defective, and column 5, the percentage found defective, it will be noted that beginning in 1949, the point at which there was a tremendous increase in the number of diesels in service, the number of defects found increased rapidly. In 1949, for 12,692 units, there were 1,238 locomotives found defective, or a percentage found defective of 4.0. In 1956, 29,405 units, 9,597 were found defective and the percentage found defective was 10.9. The total number of defects showed a corresponding increase.

Q And the second last column?

A The defects per unit inspected increased

from .091 in 1949 to .329 in 1956.

BY THE CHAIRMAN:

Q Have we the definition of what is meant by a defect?

A A locomotive defect is a part which is found to be in violation of the rules established for locomotive units other than steam. It means actually defective condition or wear beyond the tolerance established.

BY MR. LEWIS:

Q Again, going back to Exhibit 135, Mr. Chairman, pages 22 and 23 -- Schedule 8, which starts at page 20 and continues for some pages -- there are indicated in a column the parts defective, inoperative or missing or in violation of the rules. Would that column give you the type of defect found on the locomotives?

A It would give us the part which was found defective. It would not give a mechanical description of the defect found; that would be a matter perhaps of mechanical experience to determine what the usual type of failure of these component parts is.

Q I think it might be of value, Mr. Barnes, if the Commission will permit me -- perhaps I could put it this way to help the Commission. There would be, would there not, a number of defects?

A What report is that?

Q This is the 1956 report at page 20. I will put it in general terms which will perhaps be more helpful and we will not need to take up much time going into details. Generally speaking, a number of the things noted under the column dealing with defects in violation of the rules would be concerned with cleanliness, oil on the floor, and other things contrary to the rules; there would be that type of thing, would there not, under miscellaneous?

A Those defects are based to a large extent, those under the heading of miscellaneous, on the rules now in existence which do not provide for a breakdown according to the items you mentioned. Rules which are now under consideration by the commission would make that provision.

THE CHAIRMAN: They would not be relevant here.

MR. LEWIS: I want to pick out those that would not be of very great value.

BY MR. LEWIS:

Q I notice that No. 28 on page 20, Mr. Barnes, dealing with inspections and tests not made as required -- the same thing occurs on page 22 -- there would be that kind of thing, and then would I be right in suggesting -- just look at those pages -- that it would also cover defects in the actual engine and in various parts of your traction motors and the components of the diesel?

A That is correct.

Q So that you would have covered there defects ranging from defects in the components of the diesel or steam generator, whatever it may be, to untidiness, to put it at its weakest?

A Correct.

BY THE CHAIRMAN:

Q Does Exhibit 241 cover all United States railroads?

A It covers all railroads subject to the jurisdiction of the Interstate Commerce Commission. It does not cover intrastate railroads which are not within the jurisdiction of the commission, but that would represent a relatively small amount of the traffic of the country.

Q And would all those railroads have the same standard of inspection, that is

inspection by the railroads themselves?

Put it this way: would they all have the same maintenance programs?

A No, sir.

Q Or would they vary?

A They vary according to the railroad and the experience of the mechanical operating officials and the type of power that is used. I might make this one comparison. Some of these small roads are engaged largely in logging operations or work of that nature, or perhaps small mining operations. They do not have the mechanical force to properly maintain the locomotives to the standards set by the large roads which have well-established programs of maintenance. On the smaller roads the shop force may consist of a working foreman and perhaps one or few mechanics, while on the larger roads of course they have a complete organization.

Q Is there any comparable information for the better roads that have higher standards of maintenance?

A That could be provided according to the headings of Table 8. The condition with regard to the larger roads is shown in the road numbers.

MR. LEWIS: If I may interrupt you, Mr. Barnes. I should have had that,

Mr. Chairman, and I apologize for not having had the sense to do it.

THE CHAIRMAN: You are looking at Exhibit 135?

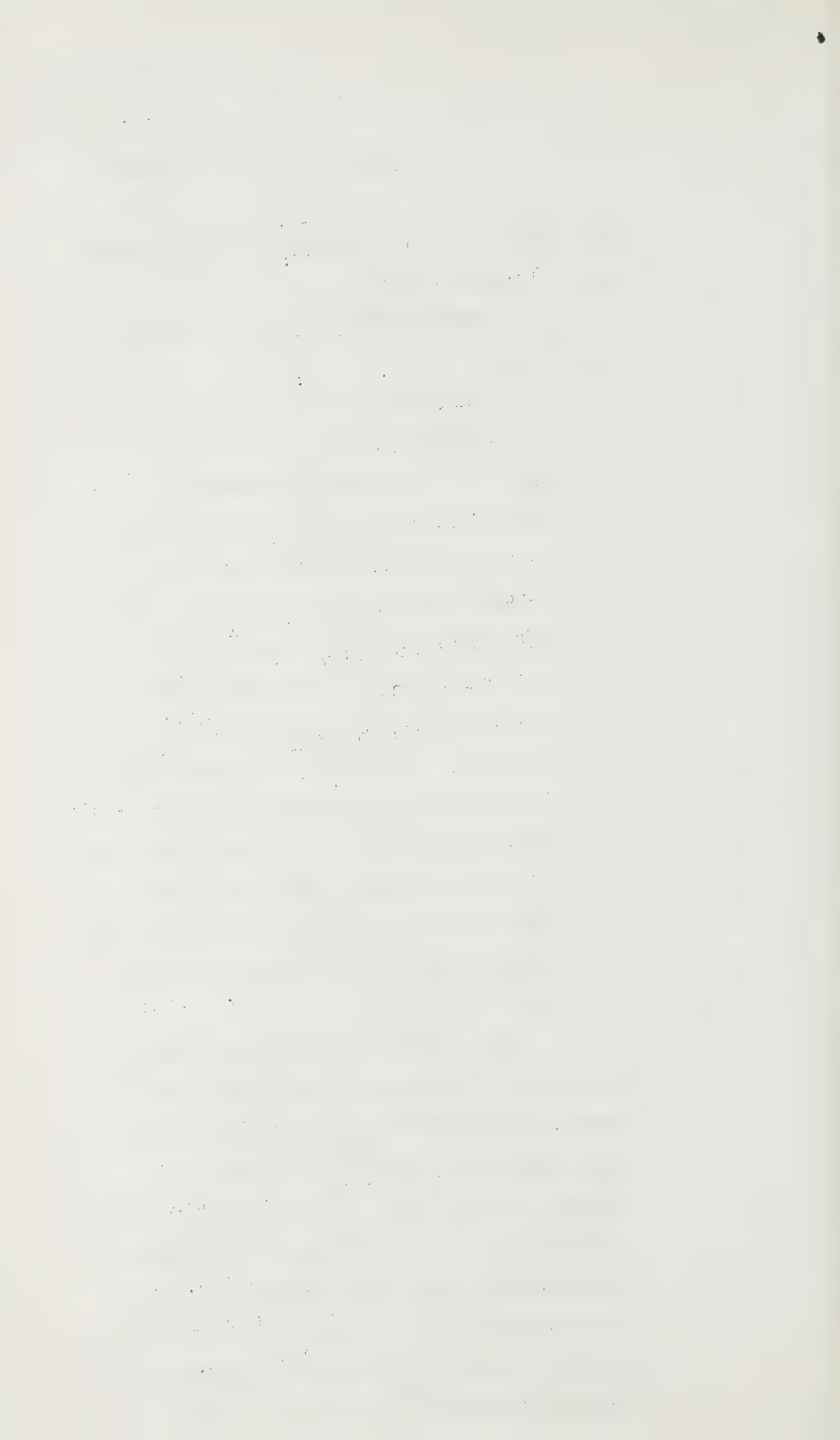
MR. LEWIS: Yes.

BY MR. LEWIS:

Q Would it be possible to prepare a table for the years, say from 1927 to 1956, as that information would be available and cover year by year the individual roads or a number of the individual roads, first-class roads that have the better maintenance programs? Could that be prepared if you were given the time to do so?

A That could be done. It would necessitate picking particular roads with high standards of maintenance and taking comparable data over the years for those roads.

MR. LEWIS: Mr. Chairman, I will undertake to the extent that it may be of assistance to the Commission to have such a table prepared, perhaps on the basis of another exhibit, whose number I do not recall, filed by one of the witnesses of my learned friend dealing with, as I remember, ten of the major railroads in the United States. I will use the same railroads and prepare the table on the basis of that other exhibit.



THE CHAIRMAN: It would look at the moment as though Exhibit 241 took in too much territory.

MR. LEWIS: I appreciate that, and we can narrow it down in that way with Mr. Barnes' help.

BY MR. LEWIS:

Q You mentioned a fourth cause of serious trouble or accident as being fires on diesel locomotives. Have you any idea how many fires have been reported to the Bureau of the Interstate Commerce Commission from 1951 to 1956?

A I have made a survey of the reports and I have found I believe twelve cases which have been reported in which casualties occurred as a result of fires.

Q If no casualty occurred would the fire be reported to you?

A We would have no official report of any accident in which no casualty occurred.

Q So that twelve fires since 1951 involved or resulted in casualties?

A Yes, sir.

Q Now, has the Interstate Commerce Commission or the officials of that commission considered the occurrence of fires on diesel engines to be of importance and of concern to them?

A Yes, sir.

Q Has any action been proposed to the commission with regard to fires on diesel engines?

A There has been, Mr. Lewis, and I will refer to the Federal Register of May 4, 1955, page 2994, and quote one of the rules proposed in connection with the amendment of the rules for locomotives other than steam. These rules are now before the commission for consideration.

Q What is that you are going to quote, this rule you say was proposed to the commission?

A This rule was proposed to the commission by the Director of Locomotive Inspection in accordance with the procedure laid down in the act.

THE CHAIRMAN: I see Mr. Sinclair is on his feet.

MR. LEWIS: I thought I had better get that clear before he registered his objection.

MR. SINCLAIR: My instructions are that certain proposed rules were set forth, that the matter was considered in some degree at least, and a report was proposed by an examiner on the staff of the Interstate Commerce Commission. The matter was then left to the various parties interested and very extensive and detailed objections have been

filed.

I understand that the entire matter of these rules to which the witness is now referring is before the entire commission for consideration. Under those circumstances I would suggest that we are going into matters that are still in a most preliminary stage in the United States and indeed, as I recollect my instructions on this matter, one of the points raised was that the rules were proposed without a conference of the interested parties which was a departure from the former practice and a departure from the practice that is followed in our country in regard to the Board of Transport Commissioners.

THE CHAIRMAN: What you are saying is that this proposed rule would not be a very firm foundation upon which we could rest any opinion?

MR. SINCLAIR: The proposed rule has been dealt with to date only by an examiner.

THE CHAIRMAN: You will appreciate that, Mr. Lewis.

MR. LEWIS: Yes, except that my instructions are that there were extensive hearings at which the carriers were present in Chicago last year, April of 1956, and the matters were considered. They are of course

under advisement.

MR. SINCLAIR: Not under advisement.

MR. LEWIS: Under consideration.

MR. MUNDELL: It was the examiner who made the report on this?

MR. SINCLAIR: There was a proposed report by an examiner.

MR. MUNDELL: That would be subsequent to the hearing?

MR. SINCLAIR: That is quite right. I have in my hand the objections to the proposed report.

MR. LEWIS: By the carriers?

MR. SINCLAIR: There are 165 pages. In there they say that they wish to present evidence which was not available at the time.

THE CHAIRMAN: As on other occasions when situations of this kind have occurred, if you think there is any value in it, go ahead and put it in, but it really is a suggestion by somebody to a body meeting as it has and we could not treat it with very much weight, I do not think.

MR. LEWIS: I would be guided by that and just say that to the extent that it would have any influence it would have the same persuasive influence as a report of any subcommittee of any administrative body which had gone into the matter pretty carefully and had held hearings and made certain proposals

to the administrative body.

THE CHAIRMAN: We have just been told that the hearings in this particular case were not in accord with the usual practice.

MR. LEWIS: That is a matter of argument. I think my learned friend is mistaken.

THE CHAIRMAN: You see the realm we are getting into?

MR. LEWIS: That is right. Just for the record I want to say that my instructions are that there were full considerations and the carriers were present at the hearing. They objected to the way it was carried on, but that kind of procedural objection frequently arises. They now want to present further evidence which they say was not available then.

THE CHAIRMAN: And they may be given that opportunity.

MR. LEWIS: I have no doubt.

THE CHAIRMAN: And perhaps the rule may not go any further?

MR. LEWIS: It may be amended, it may be rejected. The power is in the commission.

THE CHAIRMAN: It is hardly of much value, but if you think it has any value put it in.

MR. LEWIS: All I was interested in,

and I will with your permission rephrase my question. All I was interested in was to draw the Commission's attention to the fact that people in the United States who are concerned with these matters have had reason to become concerned with the question of fires on diesel engines. Whether their concern can be assuaged any way or not is a different matter.

--

--

--

MR. SINCLAIR: There is just one further thing I might also say. The situations in the two countries might very well be different and it would be quite a job to go into that. As a matter of fact, from what I do know, in some respects they are.

THE CHAIRMAN: Well, I think after consultation with my brothers we will take it but we will have to look at it from the standpoint that I think I have already indicated.

MR. LEWIS: Oh, I appreciate that -- look at it or not look at it. I am not pressing the rule itself and under those circumstances I will not merely enrich the reporter by putting it in the transcript.

THE CHAIRMAN: Twelve fires since 1951 on all of these reporting roads gets down to a small compass, does it not? There are at least 20,000 -- well I don't know how many there are.

MR. LEWIS: With great respect, Mr. Chairman, the significance of an earlier question and answer was that these twelve fires are fires which were reported to the commission or to the bureau because there were casualties resulting from the fires.

MR. SINCLAIR: They burned their hands.

MR. LEWIS: I don't know whether my learned friend has had his hands burned, but

that is a casualty if it happens to him.

THE CHAIRMAN: As I say, we will take it.

MR. LEWIS: How many fires there may have been which were not reported and fires which the train crew or engine crew may have put out without any casualties is, of course something I cannot present to the Commission. I will put the rule on the record if you ask me to. I would just as soon not --

THE CHAIRMAN: I will not ask you.

MR. LEWIS: -- in view of the reception it is likely to receive.

THE CHAIRMAN: It is up to you entirely.

BY MR. LEWIS:

Q Did you take part in the consideration of the various rules arising from -- I think you call that Ex Parte 174? Do you know, without going into any detail?

A I was chairman of the committee appointed by the director of locomotive inspection to investigate the existing rules for locomotives other than steam and present recommendations based upon the experience of our inspectors as to any amendments or changes that should be made.

The present rules were formulated at the time there were no diesels in operation. They are based largely upon electric power.

I say "no diesels". Perhaps there were some, one or two, but the rules were primarily formulated upon electric locomotives and this proceeding was for the purpose of adapting the existing rules to the modern diesel power.

Q Yes, and the next question is when your committee considered the necessity for amending the rules did you or did you not consult the inspectors with their experience on the road?

A We did. We had recommendations submitted by every inspector as to his thoughts with respect to revisions of the rules based upon his experience. During the committee operation we had two of the inspectors on the committee, two of our top men.

The reports of the inspectors were digested and tabulated and this tabulation of the reports combined with the practical experience of the men involved resulted in the preparation of proposed rules submitted to the director of locomotive inspection who in turn, after his review and consideration, submitted them as recommendations to the Interstate Commerce Commission.

Q Without going further into detail in view of the discussion, Mr. Barnes, in that experience with the inspectors and so on can you tell the Commission whether your inspectors with their experience on the

road did or did not express concern with the fires occurring on diesel power?

A They did.

THE CHAIRMAN: With that foundation, what?

MR. LEWIS: Pardon?

THE CHAIRMAN: Having laid that foundation, what?

MR. LEWIS: I will leave it, sir.

THE CHAIRMAN: You will leave it? All right. Are you passing to another subject?

MR. LEWIS: No, I have one or two questions with regard to fires.

BY MR. LEWIS:

Q In connection with fires on diesels, Mr. Barnes, can you tell from the reports of your inspectors and the discussions during the committee whether it is or is not possible for someone assisting the engineer to avert fires or to stop them before they become serious on diesel power?

A Some can depending upon the type of fire. Small oil fires can be extinguished. If fires arise from electrical causes the difficulty is more pronounced.

Q And could the likelihood of fires be averted or could it not by a helper to the engineer?

A Very definitely. Oil fires -- if the Commission permits me to go into a little detail --

THE CHAIRMAN: I was going to suggest

that you have the witness tell us if he knows the causes of these twelve fires. I think he has told us generally what causes fires but does he know what caused these twelve fires? We will certainly be interested in that.

THE WITNESS: I should be very glad to read them into the record.

BY MR. LEWIS:

Q Can you give a summary of them -- oh, they are summarized?

A They are summarized here.

THE CHAIRMAN: We will take a break now.

--- Recess.

--- After recess.

W.J.BARNES, Recalled

EXAMINED BY MR. LEWIS:

Q You were going to give us a brief description of the 12 fires since 1951. Will you do that as far as you can in non-technical language, perhaps?

A I will condense it so far as possible, Mr. Counsel. Reading from the fortieth annual report of the director, bureau of locomotive inspection for the fiscal year ended June 30, 1951, at page 22, Chicago and Northwestern Railway, June 23, 1951, fire at oil separator on air compressor --

BY THE CHAIRMAN:

Q What is that again?

A Fire at oil separator on air compressor; one injured.

Q What does that mean?

A In an air compressor the air, after being compressed, passes through the discharge line ^{which} in / a device is installed to remove the oil from the compressed air.

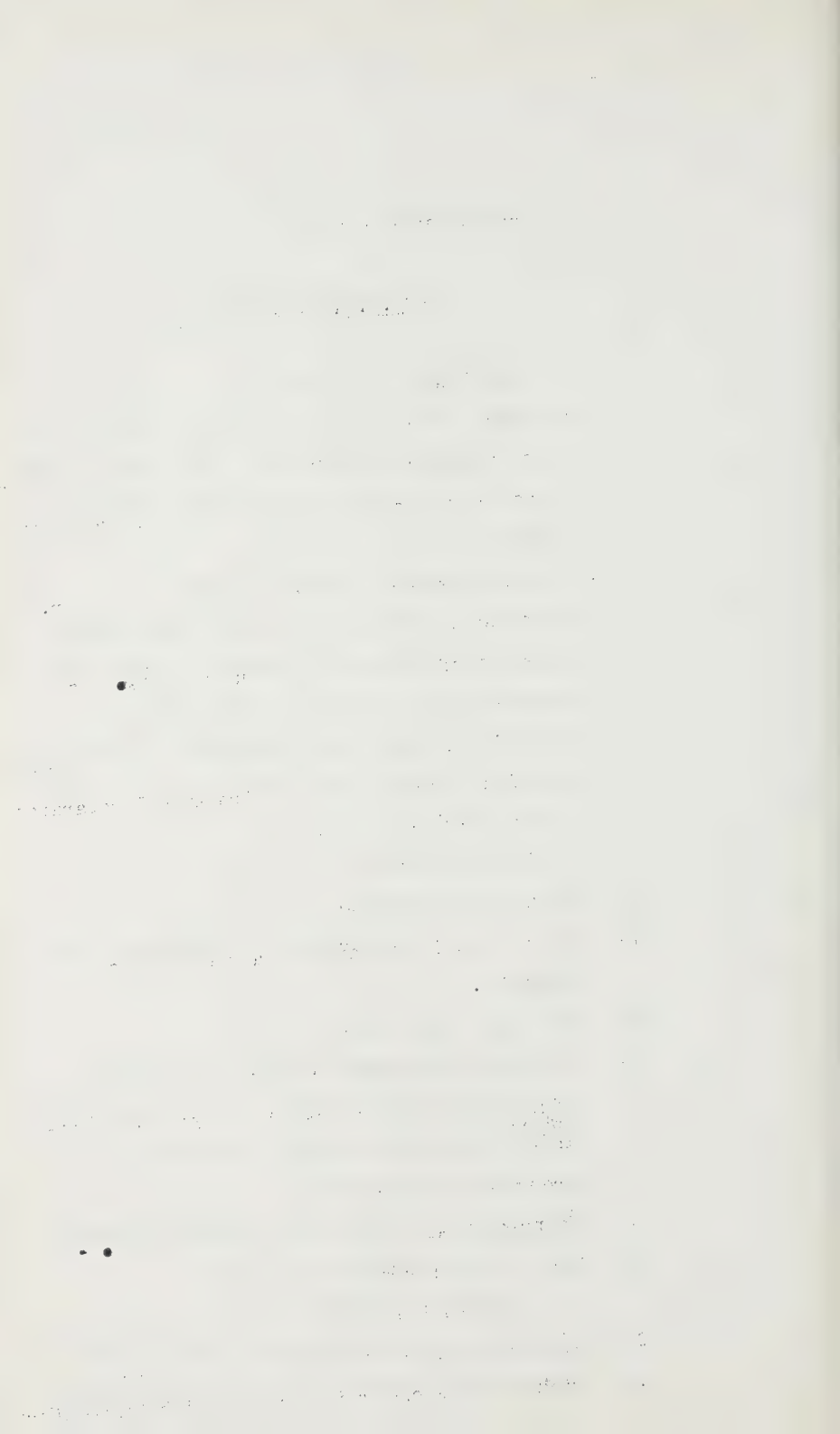
Q Compressed air is used for braking purposes?

A Yes, in train braking, yes, sir.

BY HON. MR. MARTINEAU:

Q How could a fire take place in that place?

A Probably this one was caused by high temperatures

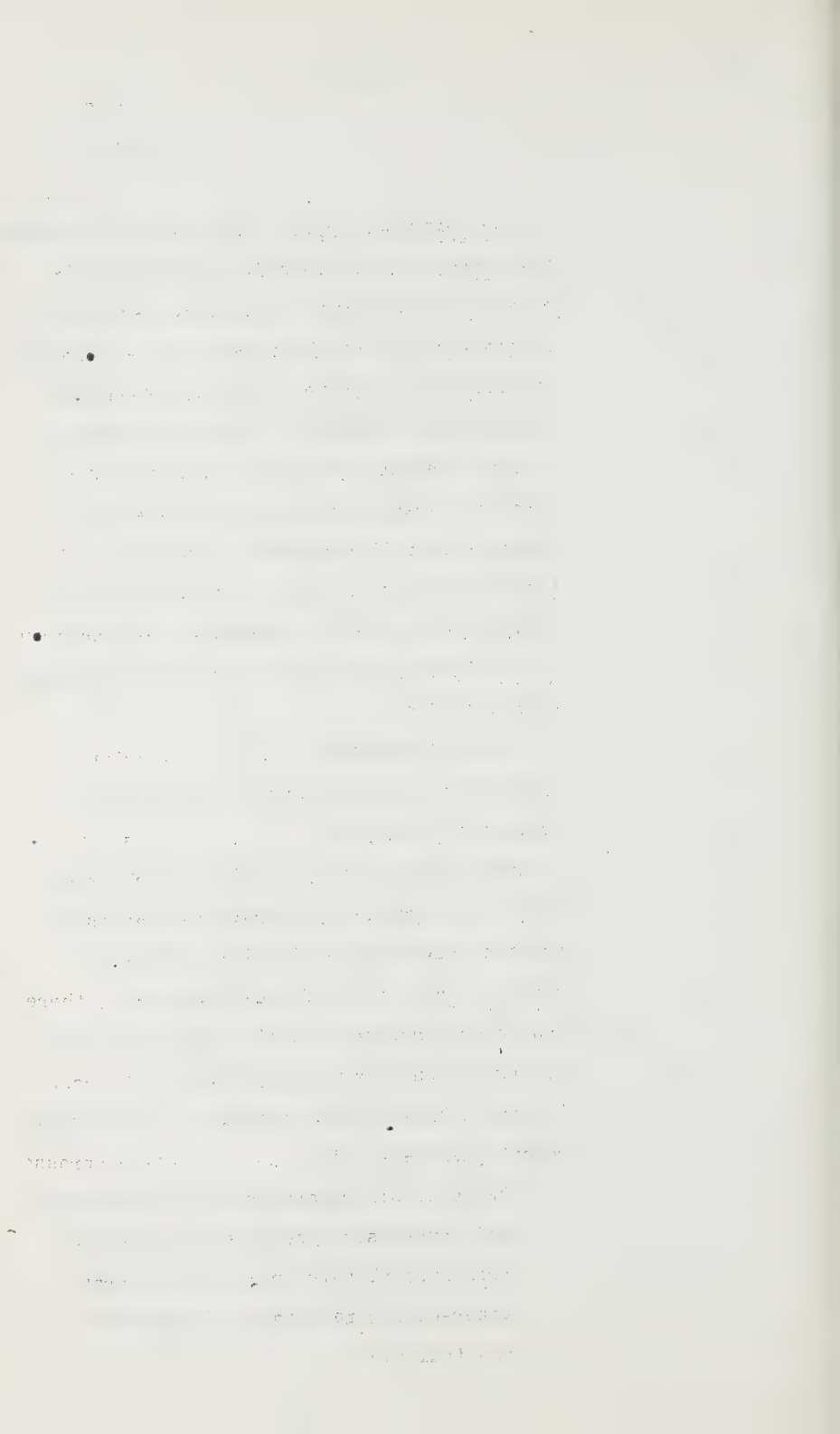


W.J.Barnes

of the compressed air. When air is compressed the temperature is raised, and when oil is on a hot pipe in which the air is above, or in the vicinity of the flash point of the oil it will not evaporate but gradually become heated until combustion, ignition occurs. In that respect oil is more dangerous than gasoline because gasoline on a moderately heated pipe will evaporate, blow away. If the temperature is high, of course, it will ignite; but where the temperature is close to the flash point the oil is a more dangerous source of fire.

BY THE CHAIRMAN:

- Q Apparently that oil was on the exterior surface of the pipe.
- A I cannot say from the digest of this report. This is one report which was not published, and the only thing available is what is shown in the report of the inspector.
- Q You do not know how the oil came to be there or how it could have been avoided?
- A Perhaps I briefed this too much. The complete report, gentlemen, is:
- "Fire at oil separator on air compressor and compressor discharge pipe pulled from incompletely brazed fitting to after-cooler radiator; oil separator was fouled."



W.J.Barnes

That is the description.

BY MR. LEWIS:

Q Does that not mean that it was on the outside?

A Very probably it was.

Q Outside of that pipe, whatever the report suggests --

BY THE CHAIRMAN:

Q What kind of diesel engine was it?

A This was unit 4057. I do not have the diagram for this unit; I do not know whether a car body or hood type locomotive.

THE CHAIRMAN:

Q There is nothing to indicate how that particular circumstance could have been prevented?

A Our afterthought would indicate there was a mechanical defect and possibly there was also some defect with the compressor. These reports are necessarily brief.

Q I know.

A My thought in this matter is that a fireman in the course of his patrol duty could have observed trouble before this occurred.

Q Do you know that?

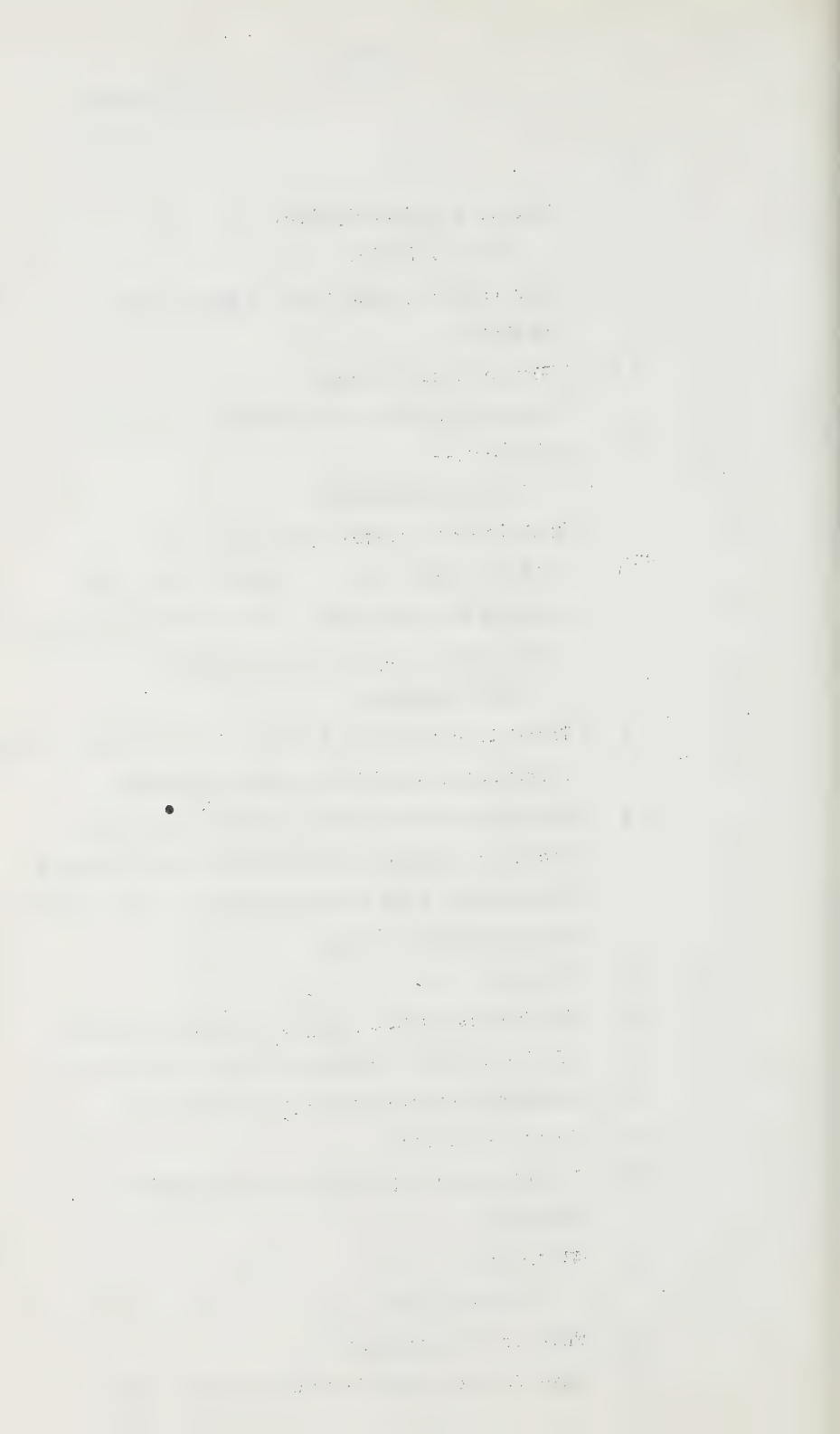
A I don't know it; that is an expression of opinion.

Q All right.

BY MR. LEWIS:

Q What is the next one?

A Page 24, New York Central system; April



W.J.Barnes

26, 1951, Unit 1031, fire in control cabinet of diesel electric unit resulting from resistance overheating of battery charging circuit due to defective reverse-circuit relay; one injured.

Q Could or could not that have been detected by someone before the fire occurred, in your opinion, if you can express one?

A Very frequently defects of this nature will start smoking before fire takes place, and a man on patrol might have observed it.

Q If a man on patrol should observe the smoking is there anything that can be done?

A He could have disconnected the circuit.

Q Would either the engineer or the fireman be qualified to do that, to disconnect the circuit?

A I think on this road they would have because it has a very good program of education in training.

Q What is the next one you wish to refer to?

A From the forty-second annual report, page 17.

Q That would be 1953?

A The year, June 30, 1953.

Q Yes?

A The Atcheson, Topeka and Santa Fe Railway.

BY THE CHAIRMAN:

Q What page are you reading from?

A Page 17.

Q The date?

W.J.Barnes

A March 5, 1953, Unit 2228; fire started at No.1 traction motor due to defective lead cable connections to traction motor, and oil accumulation on cables and top of traction motor case; one injured.

BY MR. LEWIS:

Q In that case could any one detect the accumulation of the oil or the defects in the cable?

A It could have been done; it should have been done.

Q If it had been detected could any one have done anything about it? When I say "Anyone" I mean the engineer or the fireman. Could they have done anything about it?

A This would be a shop matter, and it would have been dangerous for the engine crew to go under the unit to do cleaning. This is a shop maintenance matter.

Q In that case, since they could not do anything about it, suppose they had detected it, what, in your experience would you say should have been their course of action?

A If the unit -- if their examination indicated a dangerous condition, the unit should have been taken out of service until mechanical repairs had been made or the oil cleaned, electrical repairs made.

BY THE CHAIRMAN:

Q I rather gather that the condition in that case could only have been observed by somebody on the ground?

A That is correct.

BY MR. LEWIS:

Q What is the next one?

A Page 19 --

Q Of the same report?

A Of the same report; the New York, New Haven and Hartford Railroad, December 3, 1952, Unit 0749, fire at engine exhaust manifold caused by accumulation of fuel oil due to manifold expansion joint leaking. Openings around door between engine room and cab permitted exhaust fumes to enter cab freely. Fumes in cab reported November 9 and 25; manifold leak reported November 18 and 27; December 2, two times and three prior to accident. One injured. This was due to a leak in the exhaust of the diesel engine, the accumulation of oil which became ignited from heat.

Q It would sound from that report, would it, as if the fire was from the failure of the carrier concerned to remedy the situation which had been reported several times?

A That is correct. Now, in this case, the fireman --

Q Do you know what type of unit that is, by any chance?

A I cannot give you that. We do not show the type of unit, that is, whether it is a car body type. I do not know whether it is car body or hooded type, and it would have to be checked from the diagram.

Q Would you recognize the manufacture of that?

A No, sir.

Q You were going on to say in this case the fireman, something?

A The fireman undoubtedly would have, in the course of his usual duties, tried to keep that oil wiped off. It may be that it came down too fast for him --

BY THE CHAIRMAN:

Q Came what?

A The oil accumulated too rapidly, and he did not have time to keep it wiped, keep it down; that is something in which the fireman on patrol could be of assistance.

Q Where is the expansion joint of the exhaust manifold in that unit?

A It is beside the diesel engine in the interior of the unit. It is simply like the exhaust pipe of an automobile where the manifold comes from the cylinder block.

Q Well, on the hooded type it would be

under the hood?

A It would be under the hood.

Q And a car body type, where would it be, down below the level of the deck?

A No, it would be in the engine compartment.

Q In the latter case, it would be visible?

A Yes.

Q That is why you say somebody could have kept it wiped clean?

A Yes.

Q But not in the case of the hooded type?

A Ordinarily not, unless the doors were opened on patrol inspections. In this case the report might indicate it was a car body type because of the openings around the door between the engine room and the cab.

BY HON. MR. McLAURIN:

Q The cause of this fire had been reported again and again by the locomotive crew to the shop staff, but the defect had not been remedied?

A That is correct.

BY MR. LEWIS:

Q That is what I suggested to the witness before seemed to be the case.

A The next one, January 4, 1953, the same railroad --

Q Is that in the same report?

A It is the same report, the same page.

Q That is page 19?

A Page 19, and the unit No. 0723, fire at engine exhaust manifold resulting from defective pipes. Exhaust manifold was reported leaking eleven times in the 30 days preceding the accident. One injured.

Q Is that the same road?

A That is the same road and from the number, it would be the same type unit.

Q Perhaps we had better leave this road out of the exhibit we have promised the Commission.

THE CHAIRMAN: It is the same type of neglect.

THE WITNESS: Then, on page 21 of the same report, October 1, 1952 -- Southern Pacific Lines West, October 1, 1952, Unit 6138, fire on top of engine, diesel-electric unit, resulting from oil leakage that became ignited from heat of the exhaust manifold; one injured.

BY MR. LEWIS:

Q What, Mr. Barnes, would you know from this report -- I appreciate that it is hard and if it is you will say so -- do you know from that report whether that **could** be detected by anyone, and if so, whether anyone could have done anything about it?

A Fires of this nature usually start smoking before ignition occurs. If it was observed on patrol, something could have been done

about it.

Q In that case, if the engine is the car body type, and I gather you would not know?

A I cannot keep all these types in mind.

Q No, but if it were the car body type, then it could be patrolled in motion, but would you, from your experience, say that patrol could take place with the hooded type engine while the engine was in motion?

A No, sir.

Q Therefore it follows, would it not, Mr. Barnes, that if it were a hooded type of engine the likelihood of detection would be smaller. At least, it would have to coincide with a standing inspection rather than a running inspection, is that right?

A That is correct.

BY THE CHAIRMAN:

Q The oil leakage there came from where?

A I beg your pardon?

Q The oil leakage in that case was from where?

A The report does not give the source of the oil leakage. It could very well have been from an injection connection in which case it would be fuel oil.

Q I suppose you are just surmising?

A From my knowledge of the engines there is a pipe connection at that point, and we

have had trouble with oil leaks on injectors.

Q And the oil got on to the exhaust manifold?

A Got on to the exhaust manifold and became ignited and the fire apparently spread to the top of the engine.

Q It must have been a pretty large or a pretty fast leak to have fed a fire of that proportion?

A Oil will travel and spread, over a period of time it will cover quite an area. Our inspectors have found, speaking of housecleaning, a number of cases where rags have been stuffed in on top of engines to absorb oil leaks; the general housecleaning has not been good.

Q That is poor shop work?

A I would say it would possibly result from a defective condition which had not been corrected by proper maintenance. It is usually poor housekeeping in the unit.

Q Well, poor housekeeping is poor management?

A Yes. From the 43rd annual report for the fiscal year ended June 30, 1954, page 16, the Chicago, Milwaukee, St. Paul and Pacific Railroad, August 2, 1953, Unit 96-C. Fire in engine room of unit caused by breakdown of insulation on wires in auxiliary generator leads to high voltage cabinet and resulting short circuit; wires were in metal conduit lying at base of main

generator pit where oil and moisture leaking from the engine and appurtenances accumulated and eventually caused failure of the insulation. One injured. That was an insulation breakdown, where the leads were in a conduit which became filled with oil and moisture.

BY THE CHAIRMAN:

Q And the insulation breakdown was due to oil leakage elsewhere?

A Yes.

Q And what about the possibility of detecting the oil leakage, is that a maintenance job?

A That is a maintenance problem. Oil leakage can be detected and in so far as this particular accident is concerned a breakdown of electrical insulation results in an instantaneous flash.

Q I do not suppose we know how long a period had elapsed since there had been a maintenance inspection of that locomotive before this accident?

A That could have been determined from the company records. Under the inspection rules a record of these inspections is required to be made.

Q But that information is not available?

A That information is not available.

BY MR. LEWIS:

Q I am instructed, Mr. Barnes, and Mr.

Chairman, by an employee of the Milwaukee Railroad that 96-C is a General Motors car body type. I think you have already told the Chairman that you could not detect this fire because it would occur very quickly. You could probably detect the oil?

A Yes.

Q But you could not do anything about the fire because it would happen very quickly in this case?

BY THE CHAIRMAN:

Q I suppose if the oil leakage had been over a period, Mr. Barnes, not only could the leakage have been detected but the depreciation in the quality of the insulation might have been noticed?

A It is possible to detect that upon a Megger test. In other words, a Megger is an instrument used to determine the resistance of insulation.

Q Is that a test that is periodically made by the railways?

A It is made by many railroads. It is not required under the locomotive inspection rules, but it is made by many railroads.

Q Periodically?

A Yes.

BY MR. LEWIS:

Q Your next case of fire?

A On the Erie Railroad, page 16 of the same report, October 1, 1953; fires on unit caused by grounded high voltage cable; one injured. That is an electrical fire which is subject to the same considerations as those we have previously mentioned.

Q Could the engineer or fireman detect something that would lead them to suspect the fire might occur in a case like this?

A It is questionable.

Q And your next one?

A Page 18.

Q Of the same report?

A Of the same report. The New York, New Haven and Hartford Railroad, February 1, 1954; unit 0736, two cylinder head studs were broken, causing fire about engine and excessive smoke and gas in engine room; one injured.

... ..

... ..

... ..

... ..

... ..

Q Could the fireman or engineer have detected that?

A He would have seen the leakage; he could have detected the leakage through the stud holes.

BY THE CHAIRMAN:

Q Leakage of what?

A Leakage of the products of combustion from the cylinders. In other words, in a diesel engine when the oil vapor is exploded it forms a source of power, just the same as a gasoline explosion in an automobile engine.

Q Where would the escape of these products of combustion be manifested?

A They probably would not be shown on the hooded type of locomotive because they would go out through the air unless there was an open-door inspection made.

BY MR. LEWIS:

Q And if an open-door inspection was made could they be detected?

A It is somewhat questionable. It would depend upon the extent of the leakage.

BY THE CHAIRMAN:

Q It would be a matter of chance, I suppose?

A Yes.

BY MR. LEWIS:

Q Your next one?

A Page 19 of the same report. Union Pacific

Railroad, September 25, 1953, unit 1502-B.

"Fire occurred in V bank of D-E engine; engine running very hot due to leaking radiator hose; cylinder head cover over Nos. 15 and 16 cylinders was bent and improper fit, permitting hot lube oil to pass into bank of engine and onto base of hot exhaust manifold where it became ignited; 'engine shut down due to running hot' was reported en route and the repairs made were inadequate; two injured."

That again would appear to be the result of inadequate repairs of some defect which had been reported?

A That is correct. This defect apparently was observed by the engine crew and reported en route.

Q Was there anything after that observance they could have done that they did not do to avoid the fire, or was it only the repair people who could do anything about it?

A They took the necessary action because they shut the engine down when the condition was observed.

Q They did all they could do?

A That is all they could do.

Q And your next one?

A This is the 44th annual report of the Director of Locomotive Inspection for the fiscal year ended June 30, 1955. Page 13, "Pennsylvania Railroad":

"June 28, 1955, unit 4867.

Chafing of motor leads against lifting lug caused short circuit and resultant fire; one killed."

Will you permit me to go further on this? I cannot tell from this report whether this unit was an electrical unit or whether it was a diesel, but a fire occurred which resulted in a fatality and under our rules this case comes under the inspection and repair of locomotives other than steam.

BY THE CHAIRMAN:

Q Would you just explain that last one to me?

A The chafing of the motor leads against the lifting lug.

Q What is that?

A These motor leads are electrical connections which go to the traction motor and the lifting lug is a device on there which permits the motor to be moved by a shop crane or something of that nature. In other words, it is a device whereby

the motor can be lifted.

Q Those are simply wires that were rubbing against this metal and wore down?

A Wore down, and then a short circuit occurred.

Q That was something that could or should have been detected by the maintenance staff?

A Yes, sir. There are many of these accidents resulting from inadequate maintenance, which is aside from the question before the commission at the present time.

Q Those wires would be down underneath?

A Yes, they would.

Q Nobody up above could see them?

A No.

BY MR. LEWIS:

Q Would a standing inspection assist one in detecting anything wrong?

A I question it because these are underneath and they would hardly be available for inspection from the ground; they could be checked from a pit.

Q Your next one?

A The 45th annual report for the fiscal year ended June 30, 1956. Page 13, "Pennsylvania Railroad":

"December 28, 1955, unit 2022-B.

Leaking oil at fuel injection pump

"ignited by short circuit; oil leaks reported 12 times since November 28; wires in electrical supply line deteriorated and conduit corroded; one injured."

Q Again this would appear to be failure of the repair or maintenance people to correct a defect which had been reported to them?

A That is correct. These cases exemplify the burden which is placed upon the members of the engine crew, the engineer and the fireman, to protect themselves by careful patrolling and inspection of the locomotive and taking the proper action when necessary to avoid accidents.

Q In this case, Mr. Barnes, from the brief description of the fire and the accident, could either the engineer or the fireman have detected anything that would have enabled them to avoid the accident?

A They could have detected and did detect this leaking oil at the fuel injection pump because it had been reported twelve times prior to the accident.

BY THE CHAIRMAN:

Q I think the question was directed to the time immediately before the fire took place.

A This was an electrical flash which occurs,

as I explained, simultaneously and could not be anticipated so far as time is concerned. The general condition is observable. I think that covers the twelve I had mentioned. If it does not, it is due to an oversight of mine.

BY MR. LEWIS:

Q That and some of the other things we have discussed would lead me to ask you if from your experience you would give to the Commission your opinion as to the relationship of the engine crew in keeping a locomotive going over the road as safely as possible?

A This again is a considered opinion. I believe that the engine crew, that both members of the engine crew are essential to the safe operation of a locomotive. The engineer in the course of his duty is concerned with getting his train over the road. He is thinking, if I may so paraphrase it, ahead; thinking of his meets, of his switches, and his time. His attention should be made available for that type of work. He should not be distracted by difficulties experienced in the operation and mechanical condition of the locomotive.

The fireman, where good educational

and training programs are provided, should be qualified in the course of his patrol work to observe the operation of the locomotive. He should be able to determine from the operation of the various alarms where serious trouble is and what should be done about it.

Q In your experience, Mr. Barnes, and from your observations would you say that the education and training which engineers and firemen receive on United States roads -- by the way, Mr. Chairman, if I may ask this -- you have not had any experience either with the Canadian Pacific Railway or any other Canadian road?

A I do not want to draw any comparison between roads in the United States and those in the dominion.

Q You would not want to and you are not qualified?

A I am not qualified and my testimony would be subject to impeachment.

Q I was asking you whether from your experience it is your opinion that engineers and firemen on American roads do or do not receive sufficient training and education in the operation of diesel engines and its components?

A They are receiving -- many of the roads

have diesel cars in operation where instruction classes are held. In answer to your question, I personally think they need more training. They are receiving considerable. We have diesel cars; we have air-brake cars; we have safety cars, but "sufficient" is a comparative word and it is a question as to when training is sufficient. It is better on some roads than it is on others, but I think the American roads have realized the value of a properly trained engine crew.

They realize that a trained engine crew will promote the safety of themselves, their fellow workers and passengers. I believe that it will be considered economically desirable to continue and accelerate the training of enginemen beyond what they are receiving at the present time.

Q Let me put a thought that was in my mind, and perhaps has been in the minds of the Commission. As you yourself have indicated, and as the evidence before this Commission has shown, the diesel engine is a pretty complicated electrical as well as mechanical piece of machinery?

A That is correct.

Q It is pretty delicate to handle in many

of its components and parts and we have been told that in most cases it requires highly qualified people like electricians and mechanics to deal with most of the things, if not all, that occur. In view of that situation what in your opinion could be done -- if you think it is possible -- to train engineers and firemen so that they could assist the engine to go over the road or to avoid accidents resulting from or on the engine?

A Proper training would teach the engine crew as to what they can do and what they should not do in the case of trouble on the locomotive. There have been a number of accidents on American roads where firemen have opened various cabinets when the engine was not loading, when it was not working properly, and because of inadequate training -- they got monkeying around with a flag stick or started pushing buttons, and there has been a flash.

That is due I think largely to a lack of thorough instruction of members of the engine crew. If the fireman and engineer can be trained as to the operation and functioning of the various parts, what they can do and what they cannot do, it is going to result in

greater safety.

Q My final question, Mr. Barnes, leading from that is whether in your opinion it is desirable or not that the engineer alone be on the diesel and trained in the way you suggest, or whether it is desirable or not that the engineer have a helper with him on the diesel, trained as you suggest?

--

--

--

- A With proper training, sir, I think that a helper -- you can call him a helper or a fireman as the case may be -- can more than earn his salt. I think it is essential in matters of safety to have the engineer's attention on his main job which is getting the train over the road.
- Q Finally, again, you have told us that the burst in diesel power -- I think you called it a revolution in power -- took place in the late forties or since the late forties?
- A It was accelerated following the forties, following the war.
- Q Following the war, and would you have any opinion as to whether the ten years or so that have elapsed since that acceleration in diesel power started are or are not sufficient time for the railroads in the United States to attempt to change the crew on the engine and to reduce it?

MR. SINCLAIR: That is the question this Commission has been asked to answer.

THE CHAIRMAN: You will have to leave us something to answer.

MR. LEWIS: I will be very glad to leave you that little thing, Mr. Chairman.

THE CHAIRMAN: When you were asking the witness a little earlier as to his opinion you did not, at least, I did not hear you ask or the witness say whether in the course of his duties

it had become necessary for him to familiarize himself with the actual training that either the fireman or the engineer gets on United States roads.

MR. LEWIS: No, I did not ask that.

THE WITNESS: In answer to that question, I cannot state so far as the railroads are concerned. It is a matter of general knowledge. I can say that with respect to the inspectors of locomotives who like myself came up through steam -- I still have nostalgic feelings when I see a steam locomotive -- we were largely steam men and when the diesels came into being we had to adapt ourselves to this new instrumentality and arrangements were made to send our inspectors at government expense to the instruction schools conducted by the builders where they received the benefit of the intensive training that the builders provided. That is the same type of training which the lead mechanical men on many railroads received in order to familiarize themselves with diesel construction, maintenance and operation. Does that answer the question?

BY MR. LEWIS:

Q That does not quite answer what the Chairman asked, Mr. Barnes. Have you in your duties with the Interstate Commerce Commission or, if I may extend it a little, sir, with your

permission, or your inspectors in their duties, have you had occasion to learn what training engineers and firemen in fact receive, if I understood the Chairman correctly --

THE CHAIRMAN: For diesel engines.

BY MR. LEWIS:

Q For diesel engines on the railroads?

A Speaking as a matter of general knowledge, some of the larger roads have conducted diesel schools and instruction classes in the diesel cars. Other roads have had no instruction to speak of.

THE CHAIRMAN: The witness has already told us that but what I am interested in knowing is whether the witness knows the content of the train^{ing} that either an engineer or a fireman receives for diesel operation.

BY MR. LEWIS:

Q Have you had occasion to learn that either directly or through reports which have been brought to you?

A My information on that would be in the nature of hearsay from conversation with our inspectors. The training on diesel cars is somewhat comparable to the training which engine-men receive on the air cars.

THE CHAIRMAN: On what?

MR. LEWIS: On the air brake.

THE WITNESS: The air brake instruction cars.

BY MR. LEWIS:

Q Do you know what would be the content of the training which they would actually receive from what you have been told?

A I would not feel qualified to put that in the record.

Q Pardon?

A I would not feel qualified to put that in the record as a statement of fact but it is general instruction covering the operation of the different parts.

Q In other words, you just don't know precisely?

A I cannot put in the record specific information concerning that. Perhaps we will let it drop at that.

THE CHAIRMAN: Then I do not know what the witness means by proper training of either the fireman or the engineer.

BY MR. LEWIS:

Q You had emphasized, Mr. Barnes, that they should have proper training and I think what the Chairman is interested in knowing is what is your yardstick as to whether or not they now receive proper training.

THE CHAIRMAN: No, he says he does not know what they now receive. What does he mean by proper training?

THE WITNESS: I would consider proper training as I expressed it before to be an instruction course giving the general functions

of the equipment under their control, particularly directed to parts which should be left alone, parts which can receive attention on line of road.

It is not the type of training which a shop man would receive but it would be a type of training which would enable them to judge whether the operation of a locomotive upon which indicated defects are apparent should be continued or whether it should be closed down. That, I think, Mr. Chairman, is a matter of opinion. Whether that is of any assistance or not I do not know.

MR. LEWIS: No more questions.

BY THE CHAIRMAN:

Q There is one other thing, Mr. Barnes. I noticed when you were giving the particulars of fires that since 1953 there have just been two reported and those two were in the year 1955. Now, we have had some evidence here that as experience with these diesel locomotives has gone along they have been perfected, shall I say, old troubles have been obviated and they have been made increasingly automatic. Would you or would you not say that just on this narrow basis of the record of these fires that I point out to you between 1953 and 1955 that is some evidence of that development?

A I think we might generalize further than that and say that in diesels there is continual improvement in design and in maintenance, in design as the builders determine the capabilities of the locomotive and make changes which will improve operation, in maintenance as personnel become more familiar with the construction and have more experience of the troubles which have occurred. I think there is continual improvement in diesel locomotives as there was in steam.

BY MR. SINCLAIR:

Q To follow up the question that the Chairman put to you a moment ago --

THE CHAIRMAN: Just a minutes, Mr. Sinclair. I forgot one thing. Having had that evidence about these fires, we would like to ask the witness what the proposal was, what the suggestion was.

MR. LEWIS: If I may help you with my notes, or have you got it?

THE WITNESS: I have it. Is the previous reference in the record sufficient or do you wish it repeated?

THE CHAIRMAN: The specific proposal.

THE WITNESS: It reads:

"Rule 91.221 (b): Fire Hazard. Underframe, trucks, fuel tanks and brake rigging shall be kept free of accumulations of oil, grease and debris

that would constitute a fire hazard."

The reason behind this rule was that there was considerable complaint from our inspectors of the amount of oil which had accumulated on top of tanks, brake rigging and so forth through oil leaks in the interior of the locomotive, the overflowing of tanks and the collection of road debris en route.

We have had unofficial information of fires that have occurred resulting from the ignition of this material by a spark from the brake shoes or contact with moving parts or something of that nature. There have been -- I am speaking from memory but I believe that there have been several instances of extensive damage to diesels from fires which occurred underneath. The rule was set up for that reason, with the thought in mind that the proper maintenance of the interior of the locomotive was self-evident and covered by other features of the rules.

BY MR. SINCLAIR:

Q Mr. Barnes, I just want to follow up one matter arising out of the question the Chairman put to you just before the last one and it had to do with design changes in relation to fires. You recall that you referred to the fires that started in the exhaust manifold on the New Haven in 1952. I think there were

two of them?

A Yes.

Q Do you recall that?

A Yes.

Q You do know, do you not, Mr. Barnes, that a certain type of Alco engine had a lot of trouble right at this point and they had a design change that corrected it?

A That is correct.

Q That is quite correct?

A That is correct.

Q Now, there is one other point I was going to ask you about and that was this accident that you referred to on the New York Central, and that had to do with a derailment caused by a wheel fracture on a diesel at Muncie, Indiana, in 1951?

A That is correct.

Q As a mechanical engineer you would agree, would you not, that fatigue fractures in metals can start internally and can only be found out by magnafluxing and other tests?

A May I make a little extended reply to that question, Mr. Counsellor, or do you wish a direct answer?

THE CHAIRMAN: You answer the question any way you see fit but direct your answer to the question. That is all.

THE WITNESS: Most of the failures which have occurred in wheels -- by "failures"

I mean cracks, not necessarily complete breakage but a defect sufficient that the wheel should be removed from service -- have resulted from either slag inclusions at or near the surface or from a defect in the surface of the wheel itself in the plate. These are the type of fractures which occur in the plate or the wheel.

There are other types of fractures originating in the flange or in the rim of the wheel from other causes. One cause which has been attributed as a major offender is excessive heating of diesel wheels and the high load placed upon them.

There was one accident happened at Walnut, California, in which the derailment of some 40 cars occurred when the wheel went to pieces. That resulted from radial cracks through the hot stamp marks on the interior of the rim and as a result of that accident and discussion by the commission the American Association of Railroads made stamping upon the rims of wheels optional with the carrier and provided that the identification marks could be placed upon the hub.

In that particular case I examined photographs of the wheel. The cracks were radial. They came down through the rim, through the hot stamp marks, and I have a copy of the report here if you would be

interested in it, sir. There were a number of incipient cracks showed up in the photographs through various numerals and letters through which failure did not occur.

W.J. Barnes

A The question as to whether or not fatigue starts on the interior of a wheel, I would say it would be possible, but most of our experience has been the cracks have occurred from defects on the surface.

THE CHAIRMAN: We will continue at two o'clock. Had you finished.

THE WITNESS: May I have about three sentences more.

THE CHAIRMAN: I am sorry.

THE WITNESS: I initiated a record of broken wheels by reports from our inspectors of those which they discovered during the course of their work. They were simply records picked up around the shops, and over the course of years we found that they were averaging about 15 broken wheels a month that were turned in. How many others occurred I do not know.

BY MR. SINCLAIR:

Q They found them themselves?

A Yes, they found them themselves or some our boys picked up. In the failure of wheels, the result is caused by very heavy loading, heavy service to which the wheels are subjected, high peripheral speeds and heavy braking pressure which causes a heating of the rim. The wheels are one item which should receive very careful inspection. Magnafluxing will help. Inspection is necessary. There has been some discussion

W.J.Barnes

as to the desirability of turning the plate
or the wheels, in addition to^{the} turning of
the rims in order to remove mill scale
and permit better visual inspection.

Does that answer the question?

THE CHAIRMAN: You will answer the
question further at two o'clock.

-- The Commission adjourned at 12.33 p.m. until
2.00 p.m.

Wednesday,
June 5, 1957

AFTERNOON SESSION

-- The Commission resumed at 2.00 p.m.

WILBUR JAMES BARNES, R^Ecalled

EXAMINED BY MR. SIN CLAIR:

- Q Mr. Barnes, just before adjournment we were discussing wheels, and I think your answer was that magnafluxing would help. Now, to magnaflux a wheel requires it to be taken completely off the axle, and it is quite a job.
- A Yes, it has to be pressed off.
- Q Pressed off the axle, and that could only be done in a shop laboratory? Is that right?
- A That is right.
- Q Indeed, to completely check wheels on a diesel unit they have to be removed.
- A Not for running operations. I might refer to one accident which occurred with a broken wheel, and subsequently that railroad has instituted a process of whitening wheels. They are cleaned and an oily liquid is placed on there. That is wiped off and whitening is applied and if there are cracks that red dye will show through.
- Q Yes, that is quite a well known test. As a matter of fact, it is used on some railroads in the United States and on the Canadian

W.J.Barnes

Pacific, as a matter of fact, and that has to be done in a shop, too, by shop staffs.

A Yes.

Q That is the whiting test.

A Yes, it is a terminal test.

Q It is the simplest of all tests?

A That is right.

Q Indeed, to make a visual inspection of wheels requires visual aids such as microscopes or very strong light to see those very fine cracks.

A Yes. Of course, we can make a visual inspection, but the visual aids are of benefit. I might say, our inspectors, many of them, carry magnifying glasses in order to determine between a cracked wheel and the mill scale on a wheel.

Q Indeed, to make a test of a wheel, check it visually, the wheel has to rotate?

A That is correct.

Q To do it even in a general way you should do it from the pit.

A That is correct.

Q So that you can get both the inside and the outside of the wheel?

A Yes, sir.

Q As a matter of fact, when a diesel is standing there is only less than one-quarter of the wheel which you can see; is that not so?

A That is also correct.

4. 1. 1.

W.J.Barnes

Q I am sure you will agree, Mr. Barnes, that the best practice with regard to wheels is good maintenance practice supported by laboratory techniques and pit inspection?

A They help a great deal. At the same time, I can remember cases where broken wheels have been found by men walking along the train.

Q But the best practice is rigid inspection by shop staffs.

A Absolutely.

Q Now, I notice in Exhibit 135, which is the forty-fifth annual report of your former situation in the United States, your former association, that is, with the I.C.C. is shown on pages 7 and 8 the defects per inspection for each of the years 1951 to 1956, and on page 7, second last line from the bottom, is shown steam, and on page 8 in the second last line from the bottom is shown diesel. Casting my eyes across the page I notice in every case, in every year, there are more defects found per inspection on steam locomotives than there are on diesel locomotives. For instance, in 1956, steam, 17.0; diesel 10.9. Go back to 1951; steam, 12.9; diesel, 8.3. Y Your answer is yes?

A The figures are self-explanatory.

Q That is right. Indeed, in this report of fatalities caused by locomotives there were

W.J.Barnes

four killed, and each of those had to do with steam engines. In 1956, "Two boiler explosions occurred in the fiscal year"; --that is the year 1956. "-- both were caused by overheating of the crown sheet due to low water. Four persons were killed and two were injured in these accidents."

A That is correct.

Q There were no people killed as a result of diesels?

A That is right; correct.

Q As a mechanical engineer, Mr. Barnes, you would also, I think, agree that in regard to crank case explosions, of which there were seven in the fiscal year 1956 resulting in injury, that the best way to prevent them is to have rigid control of lubricating oil, including laboratory tests of lubricating oil and very close maintenance checks at pre-determined times?

A The railroads in the United States have instituted very careful procedure with respect to the oil tests. One railroad is using an electronic microscope, particularly for fuel oil, and when I said this morning that maintenance procedures have improved I perhaps did not amplify that by saying the technique of maintenance procedures have improved, but the application in the shop practice apparently has not kept pace with the

W.J.Barnes

engineering practice because the percent of defects on locomotives still continues.

Q Now, this increase in percent defects on locomotives, Mr. Barnes, I notice from your Exhibit 241 shows that this percent defects per unit inspected, outside of 1956, the highest previously, was in 1936 and 1938, 2.76 and 2.77, and that is not reached again until we come to 1956?

A The answer to that, sir --

Q You agree with my rundown of Exhibit 241?

A Yes. Do you wish the reason for that?

Q I just want you to confirm that and ask you, Mr. Barnes, if you will agree with me that the amount of money available to the railroads for maintenance could well have some result in this situation.

A Definitely; in the 1930's it did because the railroads were -- I will come back to the latter point, later years in a moment -- the railroads had gone through the depression of the early thirties and the maintenance, say, of power naturally suffered with the curtailment of shop forces and curtailment of money for maintenance, and that is possibly the reason that there was an increase. Along about 1935, when business picked up, more locomotives were put into service. They perhaps were not in as good mechanical condition at that time due to delayed

W.J.Barnes

maintenance as they had been previously.

Q Is it not a fact that even today the Interstate Commerce Commission has found in the United States railroads very large amounts of delayed maintenance or deferred maintenance, as it is sometimes referred to?

A I cannot answer for the Commission on that, but I can express my personal opinion that there has been a great amount of maintenance which should have been done that has not been done because of restricted shop forces.

Q Because ^{the railways are} short of money on account of the very heavy competitive forces they are meeting and their adjustment to meet those forces?

A That might be the explanation.

Q Now, these gentlemen who were injured in these crank case explosions that you refer to and who are referred to in the last report of the director of locomotive inspection, were people who were in the engine/^{room}when the explosions took place?

A That is correct.

Q And if these men were not patrolling units then they would not have been injured. That is correct, is it not?

A That is absolutely correct.

Q Now, Mr.Barnes, as a mechanical engineer, with this diesel revolution that you have

W.J.Barnes

spoken about and its impact on the railway industry and the changes that it has brought about and is bringing about, you will agree that the senior management of a railway that has got at its head people who understand mechanical matters and diesel matters is the best kind of management to deal with this diesel revolution, for instance, mechanical engineers?

A From an operating standpoint they are. Officials of a railroad are responsible to maintain their operations at the lowest possible cost. Now, whether that cost is the criterion or not is another question.

Q My question to you, Mr. Barnes, was this. If a mechanical engineer, with broad operating experience, was in charge of a railway, he would be best able to deal with the changes that have come about from this diesel revolution; he would understand the mechanical part and understand the operating part? You would agree with that?

A In the United States --

Q I am asking you that as a question.

A Yes.

Q Your answer to that question is yes.

A I cannot give you an unqualified yes answer to that question.

Q I am sorry. What I am asking you is that a railway that had people who understood

W.J.Barnes

mechanical matters, a mechanical engineer, for example, who also had operating experience, would find itself in this position. He would understand those changes required by this diesel revolution; he would be able to assess them and ^{weight} / them properly. Would you agree with that?

- A He would be able to do exactly as you said. However, his decisions would be coloured to some extent by his obligation as an officer of the company.

Q You mean operate efficiently and --

A Operate efficiently and economically so far as possible, and with the definite obligation to the stockholders to show a profit.

BY MR. LEWIS:

Q I do not know whether you can help us on this or not, Mr. Barnes, but there is just one question. My friend referred you to pages 7 and 8 of Exhibit 135, the 1956 annual report to the Director of Locomotive Inspection, and he pointed out to you the larger percentage of defects found year by year from 1951 to 1956, steam as compared with the percentage of defects on diesels. Would you feel equipped at all, and if not, you say so, to express an opinion as to whether the age of the one type of engine, steam, and the shorter age of the other type of engine, namely, diesel, would have anything to do with the percentages of defects?

A Yes, very definitely yes, and furthermore, steam engines are generally of a greater age than diesels. The maintaining of steam locomotive has been delayed many years. Cases have come to my attention where locomotives were kept in service until they run out the life of the flues, that is,

the period when the flues must be renewed according to our rules, then the locomotives are scrapped. That is one reason why steam locomotive percentage defectives has climbed so rapidly in recent years. The locomotives are run so long as they can keep going with a minimum of repairs, and then they scrap them.

BY MR. SINCLAIR:

- Q Just arising out of that: I just wonder if you have done what I did, that is, I took the percentage increase of steam and the percentage increase of diesel and I found 1955 over 1951 -- just a rapid calculation -- shows that they both increased in the same percentage, within a fraction?
- A I accept your figures as correct.
- Q It is about 31.8 for diesel and 31.3 for steam?
- A That would accentuate the fact that with the passage of years the decrease in the condition of diesels and steam was comparable.

Mr. Chairman, it has been a privilege to appear before this body. May I express my deep appreciation for the patience with which the testimony has been received.

CLAYTON GREER INGLIS, Sworn, Examined

BY MR. LEWIS:

Q Mr. Inglis, the acoustics in this court room are not very good, so if you would be good enough to speak up and turn towards the members of the Commission so they can be sure of hearing you. I understand you are now, and have been since May 1 of this year, operating as an engineer in the Montreal terminals in Transfer 1?

A That is right.

Q Before May 1 of this year you had been working for some time as a fireman in pool freight service out of Farnham, Quebec?

A Yes, Farnham to Megantic.

Q Briefly, your record of service is that you started with the Canadian Pacific as a fireman on January 7, 1943, and in January, 1950, you were qualified as an engineer?

A That is right.

Q Now, Mr. Inglis, will you tell the Commission the details that you know of an incident which occurred on March 20 in Megantic?

A Well, we were called for an extra west on March 20 at 10.30 a.m., with two diesel units, 8459 leading and a 4000 trailing unit.

Q No. 8459 would be a road switcher?

- A It is a road switcher, that is right.
- Q And 4000 would be an A or B unit?
- A That would be an A unit.
- Q You said "We were called", that would be you and the engineer?
- A Eric Foster.
- Q That is the engineer's name?
- A That is the engineer, yes.
- Q Yes?
- A And owing to a shortage of yard engines, I presume, we were called to shunt our own train. During the switching movements over Frontenac Street crossing in Megantic, we were making up our train and the movement going forward over the crossing, we were standing on the crossing at the time, and when the movement started forward --
- Q Before you go on, Mr. Inglis, you say you were standing on that crossing. Is it or is it not customary to flag that crossing?
- A Yes, it is customary to flag that crossing.
- Q You have to flag it, do you?
- A Yes.
- Q Do you, yourself, know whether it was or was not flagged at the time?
- A I could not see this time if it was flagged because I was on the fireman's side. I could not see the flagman from my side. But as the movement started forward, I was looking ahead, and I saw

this young lad of approximately nine or ten years old, just his head and shoulders above the pilot of the engine. It appeared to me that he might be in some difficulty as to maybe his foot might have been caught in the rail or some obstruction there that he could not move, because when I first noticed him he appeared to be tugging as if trying to free himself, tugging back.

I immediately called to the engineer to stop. We had just barely started the movement, I do not suppose we were going hardly at any speed whatever, because we stopped in maybe a couple of feet distance, a very short distance, I know. The lad still remained in the same position. By that time there was another lad appeared, older, and he bent down and freed a bicycle. Apparently the young lad had carried it across and it had fallen and he was apparently trying to get it out, and that is what the tugging motion was about. After some difficulty, he freed the bicycle and they departed from the scene.

Q When you started this, you said you barely started the movement, Mr. Inglis, when you just started the movement where exactly was the engine? Was it on the crossing or over the crossing?

A It was practically over the crossing. The

pilot, I would say, would be over the crossing considerably, perhaps maybe eight or ten feet.

Q And you had stopped, sort of blocking the crossing?

A The crossing was blocked.

Q You had been stopped there for how long, do you remember?

A Not very long, perhaps -- I do not think more than a couple of minutes or three minutes, maybe.

Q Did you or did you not see which way the engineer was looking?

A I did not notice at the time.

Q Do you or do you not know where the train crew was, the conductor and the other two brakemen?

A No, I did not see any of the train crew.

Q Do you know whether they were or were not on your side of the train?

A They were not on my side, no.

Q I may say, Mr. Chairman, the engineer is here to give his knowledge of these details. That is all, Mr. Chairman.

BY MR. SINCLAIR:

Q I just have one question. Before the movement was started, did the engineer start the bell ringing?

A That is right, sir.

Q That was done on this occasion?

A That is right.

Q You did say the pilot was about eight feet on the crossing, and people could pass before it?

A No, they could not pass on the crossing because the pilot, I would say, would be about six or eight feet over the crossing.

Q The crossing was completely crossed?

A Yes, that is right.

Q And the boy with the bicycle was cutting around past the crossing?

A He was cutting around on the tracks on the other side of the crossing.

Q And you started your bell just before you started up?

A That is right, sir.

THE CHAIRMAN: Then, the front of the locomotive was some bit beyond the limits of the crossing?

MR. LEWIS: That is the way I understood it.

THE CHAIRMAN: I thought it was projected into the crossing six or eight feet?

MR. LEWIS: I think I asked the witness, and he said he was about six or eight feet beyond the crossing.

THE CHAIRMAN: I misinterpreted that.

MR. SINCLAIR: So did I.

BY MR. LEWIS:

Q You were over the crossing?

A Yes, the pilot was about six or eight feet projected over the crossing.

Q Projected beyond the other side of the crossing?

A Yes, that is right.

ERIC IVAN FOSTER, Sworn, Examined

BY MR. LEWIS:

Q When did you first join the Canadian Pacific?

A On November 28, 1941.

Q And did you join as a labourer or a fireman?

A A fireman.

Q When were you qualified as an engineer?

A I think it was in 1946.

Q You now run as an engineer?

A In the winter months.

Q And then you are set back as a fireman in the summer?

A In Farnham, yes.

Q Were you the engineer on the train extra west which Mr. Inglis said you and he were called for on March 20?

A That is right.

Q Will you tell the Commission what you saw of the accident that occurred on that date?

A Well, we were making up ~~our~~ train, as Mr. Inglis said, and we had gone over the crossing. The flagman was there and had protected the crossing and he had gone back, maybe a car length, after we got onto the crossing. He had made the cut in the train and then he gave me the signal to go ahead. We were over the crossing about seven or eight feet, I wouldn't know for sure, and then when he hollered --

Q When who hollered?

A Mr. Inglis, that there was a young boy in front there trying to get away and he thought they were hung up. Then we had just started going up slow. We stopped right off and I got off where he was, where they were pulling the boy and the bicycle away.

Q By the time you got off where were you?

A Mr. Inglis was on the other side and when we stopped I went over to see what was going on, and then we could just see the young lad in front, that is the other fellow with the bicycle and the little fellow getting out of the way there.

- Q Would you say where they were in relation to the engine, to the nose of the engine?
- A They were right in front of the running board, as we could see them from the cab.
- Q Mr. Foster, you said that someone, I presume one of the brakemen, had flagged this crossing?
- A That is right.
- Q And had flagged it until when?
- A He flagged it until we were over the crossing and then he went back to get the signal from the rear-end brakeman that was making the cut in the train.
- Q Until you were over the crossing did you get a signal to stop?
- A He gave me a signal to stop.
- Q And then you say he went back?
- A About a car length or a car and a half, maybe, at the most, out of sight, to watch around the curve for the other brakeman.
- Q Could he or could he not get the signal from the other brakeman while working on the crossing?
- A It was on a curve and he couldn't see him from there.
- Q Then when he left the crossing which he had flagged and went back this

car length or a car length and a half to get the signal from the other brakeman where was your attention at that time as he went back?

A I was watching him and when he motioned ahead I started; I rang the bell and started ahead, or the bell was ringing all the time we were on the crossing as far as that goes. When he gave me the motion to go ahead I started to pull ahead and I had to watch him to see when he wanted to stop. So we were over the crossing.

Q Did you or did you not when he gave you the signal to proceed glance back to see whether your route was clear?

A Oh, yes, I always look ahead to see anything because there is always people crossing there anyway and we are careful there when we are switching. I couldn't see anybody there at all when I started ahead.

Q Do you know where the third man of the crew was?

A The conductor was with the other brakeman back there switching and figuring out the cars and checking his train as they made it up.

MR. SINCLAIR: No questions.

DENZIL CECIL BARR, sworn.

EXAMINED BY MR. LEWIS:

- Q Mr. Barr, I understand you are now working as a fireman in yard service at Smiths Falls?
- A That is right.
- Q And that you joined the Canadian Pacific Railway on June 28, 1949, as a fireman?
- A That is right.
- Q You told me that you had had some two years of firing experience with the Canadian National at Belleville before that date?
- A That is right.
- Q And in February 1955 you passed the third series of the mechanical examinations?
- A That is right, also.
- Q Have you or have you not yet been examined on the A Rule Book?
- A Yes, I have.
- Q And so you have been qualified as an engineer?
- A That is right.
- Q But you have not yet run as an engineer, I understand?
- A No, not yet.
- Q Will you tell the Commission, Mr. Barr, the details of an experience which you

had on April 10 in the Smiths Falls yard?

A Well, it was around 11 o'clock at night on April 10. We had left a train on what they call the run-around in Smiths Falls.

Q Will you speak up a little bit?

A We were heading west on the run-around after leaving the train.

Q That is the name you give to one of the tracks?

A It is a name we give to a track there. It is an out-bound track for trains going west or north from the east yard in Smiths Falls. There is a parallel track, a lead track in the west yard. There was another engine working there, they were switching.

Q I think Mr. Sinclair and the members of the Commission are having a little difficulty hearing you. Just speak a little louder and stand a little more closely to this, but not too close. You said you had turned down onto this run-about track?

A Run-around track.

MR. SINCLAIR: This is the Canadian Pacific, not the Canadian National.

MR. LEWIS: I will have to give some consideration to the distinction between run-around and round-about.

BY MR. LEWIS:

- Q You had brought a train onto this run-around track?
- A Yes.
- Q Did you cut off the engine?
- A Cut off the engine and proceeded west on the run-around track up to the switch to cut back and put the van on the train we had left on the run-around.
- Q That is what you were going to do?
- A That is what we were going to do.
- Q You were going to take your light engine to get the van to put it on the back of the train you had left on the run-around track?
- A That is right.
- Q You proceeded west on this run-around track?
- A We proceeded west on this run-around track.
- Q You were saying there was a track parallel to this run-around track?
- A Yes, a lead track in the west yard. This engine 6552 was working there putting a van on another train.
- Q That is the engine you were working on?
- A No, the other engine. I was on 7011. This yardman Francis, he dropped off the back steps of the van.
- Q The van of this engine?

A Yes.

Q That was working on the lead of the west yard?

A Yes, to turn the switch, No. 2 switch, to line up the van in the other yard to go down on their train. He didn't hear us coming on account of the noise of our engine. He just heard the noise of his own diesel working and he didn't pay any attention to us. He bent over to throw the switch and line things up and our engine come up there and I hollered to the engineer to stop as I didn't think he was clear.

Q May I stop you a moment. These two parallel tracks, the run-around track and the lead track of the west yard, what is the clearance between them. How much of a clearance is there?

A With a car on each track a man could stand up and maybe have half a foot on each side, a clearance of six inches on each side standing up straight between two cars.

Q You say that this yardman Francis from the other engine bent down to turn a switch into Track No. 2 -- you said No. 2 switch but I imagine you meant the switch into Track No. 2?

A That is right. Well, the engineer,

I told him to stop. He stopped and we just brushed him with the front of the engine.

Q Brushed whom?

A Yardman Francis, and we knocked him down, just kind of knocked him over. So the engineer went out to see if he was hurt and he was all right so we proceeded back on our evening's work.

Q How fast would you say you were moving along the run-around track?

A Oh, about three or four miles an hour, just going up there slow.

Q When did you first notice this switchman bending over and were afraid he was going to be foul of your movement?

A I first noticed him about a car length. I thought when he dropped off the van he would stay clear of us, but he didn't seem to hear us so I told the engineer to plug it as he wasn't going to get out of the way.

Q Do you know where your yard crew were, the yard foreman and the two trainmen?

A The yard foreman and one yardman were down at the yard office where we had left the train to line up the switches for us, and one yardman he was on the back steps on the right side behind the engineer, the back steps or the foot-board.

- Q You were going nose forward?
- A Nose forward.
- Q You say he was on the back step on the side of the engineer?
- A The right side.
- Q That would be the steps leading into the engineer's portion of the cab, would it?
- A Yes. He rides on the bottom step.
- Q Do you know from whom the engineer got the signal to go ahead?
- A He came up with the engine when we cut it off the train; he came up with us.
- Q You told the Commission that the engineer went down to see how Yardman Francis was when you knocked him over. Did you go down to see him?
- A No, I did not.
- Q Why?
- A I thought maybe he was hurt worse than he was and I didn't like to look at him if he was hurt bad. I am a little nervous that way.

MR. LEWIS: Those are all the questions I have to ask Mr. Barr.

BY MR. SINCLAIR:

- Q Mr. Barr, this engine follower that was riding with your engine and taking it back to the head of your train, was

he --

A Back to the tail end of the train to put the van on.

Q He could have been riding on the front of your diesel?

A Yes, but they have a sign there that says not to ride on the front.

Q It doesn't say not to ride on the front, it says not to ride on the footboard.

A When the engine is moving forward.

Q He could have ridden up on the steps that are provided, up on the platform, he could ride there?

A Yes.

Q This man Francis, he dropped off and placed himself foul of your track; did he look?

A Well, he didn't hear us coming.

Q I asked you if he looked?

A It was pretty dark and I couldn't see the way his head was turned.

Q You did not see him look?

A No.

Q If he had looked he would have seen you?

A Yes, but the other diesel was making a lot of noise.

Q I said if he had looked he would have seen you?

A Oh, yes.

Q Was your headlight burning?

A On dim.

Q But it was burning?

A Yes.

Q This was 11 o'clock at night?

A That is right.

BY THE CHAIRMAN:

Q Are there flood lights in that yard?

A Yes, there is.

BY MR. SINCLAIR:

Q Was your bell ringing?

A No, sir, it was not.

--

--

--

THE CHAIRMAN: Is there a rule governing that?

MR. SINCLAIR: The rule as I recollect it is that before you start a movement the bell should be rung.

MR. LEWIS: A movement in a yard, Mr. Sinclair?

MR. SINCLAIR: I think there is some provision as to that. That is my recollection, but I would like to check it. It is rule 30 at page 35.

"The engine bell must be rung when an engine is about to move; while moving about stations; while passing a train standing on adjacent track, and 80 rods (1/4 mile) from every public crossing at grade until the crossing is passed."

That is the rule.

MR. LEWIS: Mr. Chairman, I should like to call Mr. Barr back in view of that.

THE CHAIRMAN: Certainly.

DENZIL CECIL BARR, Recalled

MR. LEWIS: The rule is "when an engine is about to move."

THE CHAIRMAN: Of course, there is more to it than that.

MR. SINCLAIR: There is a semicolon there.

BY MR. LEWIS:

Q In answer to Mr. Sinclair you said that the bell was not rung when this incident occurred. Had it rung at all or not?

A No, because we left the cars, we cut off the train, we were away back, only had four or five cars, and we had been moving quite a distance then when we came in contact with yardman Francis.

Q Do you remember whether the engineer rang the bell at any time after you left the train and the engine was cut off from the train, at any time before you started to move up the run-around track?

A No.

Q Pardon?

A No.

Q You don't remember?

A He hadn't rung the bell.

Q He hadn't rung the bell?

A No.

THE CHAIRMAN: It might be useful, Mr. Lewis, to have this witness' idea about these

words, "while moving about stations". I assume it means that the engine bell must be rung while moving about stations. Would that have applied at the place where this incident took place in this witness' view, or would it not?

BY MR. LEWIS:

Q Rule 30 says that the engine bell must be rung when the engine is about to move and then it also says it must be rung while moving about stations?

A The station from where we were is about ten tracks over, right over beside the shop track. The station is over on the far side. We weren't near any station.

Q And do you or do you not think that these words that the engine bell must be rung while moving about stations make it necessary for the engineer to ring the bell in the circumstances in which you were on the run-around track going up to get your van?

A No, I don't think it does.

Q You don't what?

A I don't think it means that at all. When you go around the station you ring the bell there.

Q How long have you worked in the Smiths Falls yards?

A I have been there two years.

MR. LEWIS: I am sorry, sir. Were you going to ask a question?

THE CHAIRMAN: It is all right. I have another one.

BY MR. LEWIS:

Q How long have you worked in the Smiths Falls yard?

A In this yard two years steady now.

Q Is it your experience or can you tell the Commission whether as you move about the yard doing your work your engines have their bells rung?

A Not unless somebody is going to come too close to it.

Q Pardon?

A Not unless somebody comes too close to the engine. We ring the bell then but as far as just moving about, no, the bell isn't rung.

THE CHAIRMAN: What I had in mind was the other part of the rule which says that the engine bell must be rung while passing a train standing on an adjacent track. Now, was it a train from which yardman Francis dropped off and was it standing?

BY MR. LEWIS:

Q You say that yardman Francis jumped off a yard engine that was working the lead. Was it a train?

A A yard engine with a van.

Q A yard engine with a van?

A With a van.

Q Was it standing?

A It was -- well, it was standing, yes. It just stopped.

MR. LEWIS: If I may, Mr. Chairman, I did not want to do it before the witness answered the question but if you look at page 6 of Exhibit 2, you will find a definition of "train". It says:

"An engine or more than one engine coupled, with or without cars, displaying markers."

If I remember correctly, and I can certainly be set right if I do not, a yard engine would not be a train.

MR. SINCLAIR: No.

MR. LEWIS: My friend agrees. Therefore I do not think the reference to a train standing on an adjacent track would be applicable in this instance.

THE CHAIRMAN: Thank you.

BY MR. SINCLAIR:

Q Just arising out of this, Mr. Barr, it is the usual practice in Smiths Falls yard, is it not, to ring the bell where people are about, as you are passing where people are about?

A That is right.

Q And if you are going to pass a van the usual thing is to give a warning?

A Not all the time, no.

Q Quite often?

A In the day time they can see you coming.

Q But at night?

A Well, they have got floodlights there and they usually see you coming.

Q But you do not usually ring the bell when you are going to pass a van stopped where people are liable to get off?

A That is the only spot where it is close enough like that.

THE CHAIRMAN: I did not hear that answer.

THE WITNESS: That is the only spot in the yard where the two tracks are that close and a man drops off a van and you have to ring the bell.

THE CHAIRMAN: I did not follow that.

MR. SINCLAIR: It is the only spot in the yard where the tracks come that close and where a man would drop off a van.

THE CHAIRMAN: Does this witness say the practice was or was not to ring the bell in that place if there was a man there working?

BY MR. SINCLAIR:

Q What is the answer?

A Well, it isn't the usual practice, no.

Q It has been done by some crews?

A Oh yes.

Q And it is a good safety precaution to do so?

A I would say it was, yes.

MR. SINCLAIR: Mr. Chairman, there is safety rule 1216 in Exhibit 49. This is the one I was also trying to put my finger on. It

reads as follows:

"Employees must, when engine is about to be moved either by its own power or by another engine, ring the bell and know that persons, water spout, sand spout, coal chute apron, snubbing chain and other objects are clear."

THE CHAIRMAN: Mr. Sinclair, I could not hear.

MR. SINCLAIR: You asked me about the rule -

THE CHAIRMAN: I just could not hear your reading. That is all.

MR. SINCLAIR: The other rule I had in mind was rule 1216 of Exhibit 49.

"Employees must, when engine is about to be moved either by its own power or by another engine, ring the bell and know that persons, water spout, sand spout, coal chute apron, snubbing chain and other objects are clear."

Then there is the general rule, rule 1100.

"Employees must exercise the utmost caution to prevent injury to themselves and others."

That is the general rule with regard to this matter.

THE CHAIRMAN: That, of course, would

1. The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

$$f(x) = \int_0^x f(t) dt + \int_0^x f(t) f'(t) dt.$$

It is shown that the function $f(x)$ is continuous and differentiable on the interval $[0, 1]$. The derivative of $f(x)$ is given by the equation

$$f'(x) = f(x) + f(x) f'(x).$$

From this equation it follows that

$$f'(x) = \frac{f(x)}{1 - f(x)}.$$

Integrating this equation we obtain

$$f(x) = \frac{x}{1-x}.$$

apply to both Francis and the engine crew.

MR. SINCLAIR: That is right, sir.

MR. LEWIS: May I, with your permission, ask a question arising out of this?

BY MR. LEWIS:

Q . Did you see the yard engine working on the lead of the west end yard?

A They had just come out of the van siding with this van when we came up alongside them, up along the run-around beside them there.

Q How long before you made contact with this yardman had you seen the engine that the yardman was working on, not the yardman himself but the engine?

A Oh, I would say about three carlengths was where we saw the engine. It came out of this other track on the lead. They had been down there getting a van and we came up around the run-around.

MR. LEWIS: Thank you, Mr. Barr. The next witness is Mr. Donald Day Lancaster.

DONALD DAY LANCASTER, Sworn, Examined

BY MR. LEWIS:

- Q Mr. Lancaster, correct me if I did not get correctly some of the information about your service which you have given me. You are now employed as a fireman on the Santa Fe Railroad?
- A That is right.
- Q Out of Arkansas City in Kansas. Is that right?
- A Yes.
- Q In the State of Kansas, is it not?
- A That is right, the State of Kansas.
- Q You run from Arkansas City to Purcell?
- A That is right, Purcell, Oklahoma.
- Q In what State is that?
- A Purcell, Oklahoma.
- Q Now, you hired on the Santa Fe, Oklahoma division, on April 12, 1942?
- A That is correct.
- Q You were promoted to engineer in May, 1948?
- A I would say May or June, around that time. I think the final was around June.
- Q Of that year?
- A Of 1948, yes sir.
- Q You have had experience firing and have you had some experience running?
- A That is correct.
- Q Oil and diesel engines only?
- A That is true.
- Q You have no experience of and no nostalgic

feelings about steam engines other than oil?

A That is right. I don't know them. I passed an examination on them, a written examination but I have had no actual experience.

Q And you were in military service from 1944 to 1946 and have also been qualified as a passenger engineer on your railroad?

A That is correct.

Q And you have had experience firing and running in both passenger and freight service? Is that right?

A I have had experience running in freight only and yard service, no experience running in passenger.

Q But some experience --

A Experience firing in passenger, yard and freight.

Q Now, on March 15, 1956, you informed me, Mr. Lancaster, that you were appointed road foreman of engines on the Missouri division of the Santa Fe Railroad?

A That is correct.

Q And of course by sheer coincidence you were appointed to that position replacing Mr. Lawrence?

A That is true.

Q For that period of time, Mr. Lawrence, who is road foreman of engines on the Santa Fe Railroad?

A He was assigned other temporary duties and I

was assigned in his place.

Q And you continued as road foreman of engines until December 1, 1956, when you went back firing. Is that right?

A That is true.

Q Now, what is your record of demerits or whatever system of discipline you have on the Santa Fe? What is your personal record with respect to that?

A I have none as of this date. I have never been issued any demerits, not that sometimes perhaps I was not guilty and needed them but I have never been issued any discipline or any demerits, any time off.

Q You are a member of the Brotherhood of Locomotive Firemen and Enginemen and are not now an officer although you were local chairman and state legislative chairman for some years prior to your being appointed road foreman of engines?

A That is true.

Q Now, when you were road foreman of engines, Mr. Lancaster, what territory did this Missouri division cover?

A The territory that I was assigned to was the Missouri division, that portion of the railroad, of the Santa Fe, that lies between Fort Madison, Iowa, and the outskirts of Kansas City, Missouri. The stations would be Fort Madison to Sheffield. Although we had men

working into Kansas City and into the Argentine yards, our jurisdiction ended at Sheffield -- my jurisdiction, I should say.

Q We were told by Mr. Lawrence, if I remember correctly, that there had been a consolidation of two divisions including the Missouri division?

A That is correct. It was all taken under one superintendent with headquarters at Shopton, Iowa, and by way of explanation I might say that Shopton is the railroad name for Fort Madison. In other words, it is all one town. The headquarters at Shopton and the division itself included all from Chicago to this point that I have stated, Sheffield, Missouri, and on the outskirts of Kansas City.

Q That, then, became consolidated and it is called the Illinois division?

A That is correct; the Missouri division is no longer in existence.

Q When it was thus consolidated into the Illinois division the two divisions were consolidated into one. Is there one or more than one road foreman of engines covering that consolidated Illinois division?

A As consolidated?

Q As consolidated?

A One road foreman is assigned, with headquarters at Fort Madison, with territory from Chicago, including up to Fort Madison; another is assigned with headquarters at Fort Madison, with territory from Fort Madison to Sheffield, and there is another road foreman that covers the portion that would be the Argentine yards and Kansas City terminal.

Q Would you know, from your own knowledge, as to whether Mr. Lawrence would have jurisdiction over the combined Illinois division, including Fort Madison and Sheffield and the Argentine yards, or what would be his jurisdiction?

A Unless it has since been changed, his re-appointment, when I was relieved, would cover only the third and fourth district of the present Illinois division, which would be the former Missouri division; in other words, the third and fourth district of the Illinois.

It is the duty of every citizen to
to protect the rights of the people
of the United States.

The government of the United States
is a government of the people, by the people,
and for the people.

The government of the United States
is a government of the people, by the people,
and for the people.

The government of the United States
is a government of the people, by the people,
and for the people.

The government of the United States
is a government of the people, by the people,
and for the people.

The government of the United States
is a government of the people, by the people,
and for the people.

The government of the United States
is a government of the people, by the people,
and for the people.

The government of the United States
is a government of the people, by the people,
and for the people.

The government of the United States
is a government of the people, by the people,
and for the people.

Q I ask you this, Mr. Lancaster, because at page 3983 of volume 28 of the proceedings our friend Mr. Sinclair asked Mr. Lawrence this question:

"Now, as road foreman of engines on the Illinois division with your jurisdiction between Chicago and Kansas City, when you were not on special assignments -- "

Would that be the jurisdiction of districts 3 and 4 or all four districts, do you know?

A Would you repeat that, between Chicago and Kansas city? Is that what he said?

Q Yes.

A That would include two of the former jurisdictions first and that of the other road foreman that he is assigned on what is now the first and second district.

Q Then, the question went on -- I will start it again:

"Now, as road foreman of engines on the Illinois division with your jurisdiction between Chicago and Kansas City, when you were not on special assignments, how many miles a week would you ride engines?"

That is the question, and Mr. Lawrence answered as follows:

"Oh, I would say -- you mean on the engine itself?

Q. Yes.

A. That is perhaps where I do all my riding anyway -- oh, about 1200 to 1500 miles a week. One round trip would give me 902 miles."

Can you inform the Commission, from your knowledge of the district and your experience as road foreman, what that 902 miles refer to or what distance it covers?

A The 902 miles, as I interpret what he had in mind, would be the distance from Chicago to Kansas City and return. I made the trip from Chicago to Kansas City when one time I was road foreman of adjacent territory and was on vacation. However, as a common practice or as an every day supervising practice, the territory that is normally covered would not in a round trip exceed 440 miles, or in that neighbourhood. Never to exceed 500.

Q Now, Mr. Lancaster, still dealing with Mr. Lawrence's evidence which is perhaps as good a way as any to approach the next point I wish you to deal with briefly, Mr. Lawrence at pages 3994 and 3995 of volume 28 dealt with the amount of time the fireman in passenger service was kept in the engine room on the Santa Fe. This would go back to the earlier years. I must be fair to Mr. Lawrence. It goes back to the earlier years of diesel power on the Santa Fe.

What was your experience. Did you fire passenger service?

A I did. Shortly after the six months' qualifying period that we have in freight to qualify for passenger service I was one of the few firemen on the extra list that was qualified for passenger so that I made several trips, and I would say that was about the time when the first passenger engines were running on any particular run. We still had a preponderance of steam but we had one particular run that was assigned diesel, from Chicago to Fort Worth Texas.

Q Yes, what was your experience as a fireman on this passenger train at that time?

A My experience was this, that on our portion of the railroad, as I am sure, it is true of other portions at that time, that the fireman was kept in the engine room quite some time in order that he might acquaint himself with the different duties that were assigned there, and at that time we had maintainers on them and they would instruct us in the operation of the engine room. However, our instructions were also that we would be in the cab of the locomotive for passing through towns where there were numerous road crossings, and also through stations that had open order offices; in other words, places where train orders might be delivered.

Q Did you when you were road foreman of engines, have occasion to instruct firemen on their duties -- in 1956?

A There was not too much occasion to instruct. However, each fireman as he became due for a new examination, either a first, second or final examination, it was necessary that he be examined on those different questions as contained in the first, second and final examination. Of course, the final examination was a third year, and it was taken in connection with the air examination, too.

Q Now, one other matter with which Mr. Lawrence dealt, I should like to draw something to the attention of the Commission. In volume 29, beginning at page 4053 and continuing on some pages, which I will try to summarize -- I hope I am not inaccurate -- Mr. Lawrence and I had a discussion during cross-examination about what he might or might not do if either his fireman alerted him that a car was approaching a crossing and was not likely to stop or that he himself on his side noticed that, and Mr. Lawrence's answer was, if my memory is correct, that he would not do anything or that he could not do very much.

A He said, I think, perhaps that he would blow the whistle.

Q Yes?

A But that is a foregone conclusion, that the

whistle would already be sounded or be in the process of being sounded for the road crossing.

Q You have, Mr.Lancaster, have you not a code of operating rules on the Santa Fe?

A That is correct.

Q You gave me, did you not, one that is dated 1953 for your railway?

MR. SINCLAIR: Mr. Lewis, I just turned this book open and I want to point out something to you.

MR. LEWIS: Yes.

THE CHAIRMAN: Perhaps we will take a recess at this moment.

--- Recess.

--- After recess.

MR. LEWIS: Mr. Chairman, just as we rose for the recess my learned friend Mr. Sinclair suggested that perhaps I had not represented Mr. Lawrence's evidence entirely accurately because of a remark that was recorded on page 4055 of Volume 29, where Mr. Lawrence said:

"We would certainly hope sincerely the man would get across, or whatever the occupants were, but that is one of the deals about running a locomotive. You use your own judgment. If there was a chance for me to stop, I would certainly do so."

I admit that is there, but I suggest that is the reason for the question. I have to read a little more, if I may, Mr. Chairman. Starting on page 4053, near the top, I said to Mr. Lawrence:

"Q. You ran an engine over the road, did you?

A. I did.

Q. You do not recall a fireman ever saying to you as you were approaching a crossing, 'There is a car coming, I do not know whether --"

THE CHAIRMAN: I am sorry, from where are you reading?

MR. LEWIS: Page 4053, sir.

THE CHAIRMAN: Whereabouts?

MR. LEWIS: Page 4053 --

THE CHAIRMAN: I have the page, but whereabouts?

MR. LEWIS: I start on the sixth line, the question:

"Q. You ran an engine over the road, did you?

A. I did.

Q. You do not recall a fireman ever saying to you as you were approaching a crossing 'There is a car coming, I don't know whether he will make it' or anything of that sort?

A. Oh, yes, I remember that, sure; many times.

Q. You remember that kind of thing was done, that kind of thing being drawn to your attention, and your doing something like reducing speed or something of that sort?

A. Your question is do I remember doing something about his calling my attention to it?

Q. As a result of his calling your attention to something?

A. By the time you are approaching a

"road crossing at grade there is not too much you can do, depending of course upon the speed of your train. If you are running at a high rate of speed, 60 miles an hour or 90 miles an hour with a passenger train, or even 40 miles an hour, if a car did drive up on the crossing there is not anything you can do about it, absolutely nothing.

Q. I asked you whether you remembered doing something about it, I did not ask you a theoretical question.

A. I don't remember doing anything about it; no, I do not.

Q. You just listened to what the fireman had to say and ignored what he said?

A. I did not say I ignored what he said. The only thing he told me was there was a car coming. I would blow the whistle.

Q. And not reduce your speed?

A. No.

Q. Not make a reduction of your brakes?

A. Definitely no.

Q. Just keep on going the same way you had been?

A. That is right.

Q. In spite of the information which the

"fireman had given you?

A. The information, Mr. Lewis, was that a car was coming.

Q. I said 'A car is coming, I am not sure he will make it', that is the information I suggested to you.

A. Well, lots of times he did make --

Q. Pardon?

A. Lots of times he did make it. I would not know whether he was going to make it or not. If we did that every time we ran a train over the road every time a car came up to a crossing and we didn't know he was going to make it, we certainly would not have good train operations. We just could not do that."

There is some more of the same sort.

In connection with that, Mr. Chairman, I asked the witness -- I would like to read into the record Rule 893 on page 141 of the rules of the operating department of the Santa Fe Railroad. This rule book is dated in the year 1953. Rule 893 reads as follows:

"The utmost care must be used, even to the extent of stopping trains, to prevent the striking of persons, animals or vehicles. When an engine strikes

"an object that may cause damage, stop must be made immediately for inspection."

Then, there is some more to that rule that is perhaps -- perhaps I had better read it in case I leave out something that is of importance.

"When stock or dead animals are found on right of way, sectionmen should be notified, if possible. Dead or crippled animals must be removed from the track. The striking of persons, animals or vehicles or the observance of stock on right of way, should be reported to the trainmaster from first office of communication."

Now, part of the rule, Mr. Lancaster --

HON. MR. McLAURIN: These are the safety rules of the Santa Fe. It is not a uniform code?

MR. LEWIS: These are the operating rules of the Santa Fe. This is not in evidence, but I may say that I have looked at three or four of these rule books, including the Canadian Pacific, and a good many of the rules are obviously standard to all the major railways on this continent. They vary, but in fact, in a good many instances the basic rules are the same.

HON. MR. McLAURIN: I say it is not something that is uniformly imposed on the Santa Fe by the Interstate Commerce Commission?

THE WITNESS: I do not believe so.

They are all patterned after the Uniform Code of Operating Rules, but each railroad puts on its own interpretation and adds those rules that they feel are necessary.

BY MR. LEWIS:

Q The first sentence of this rule I have read:

"The utmost care must be used, even to the extent of stopping trains, to prevent the striking of persons, animals or vehicles."

What obligation would you say that rule would impose on you or anyone as engineer when you notice or you are alerted that a car is approaching a crossing?

A That has been our experience, that of course ~~there~~ is a fine line there that you must draw so that, like Mr. Lawrence inferred, you would not necessarily be stopping for each occasion when one was approaching, but at the same time if one was approaching and you did not think he was going to stop you had better make an attempt to stop in order to comply with this rule.

Of course, the first thing we are asked at a coroner's inquest or at a resulting investigation if any personal property or human lives are damaged, is,

was the air applied? It is almost
synonymous with the question, Was the
whistle sounding or was the bell ringing?

Q From your experience would you be able to tell the Commission whether some action like applying the air, reducing your speed or attempting to reduce it, or attempting to stop; whether in your experience that has been of value, either in avoiding or reducing the effect of accidents?

A It definitely has. I have had experiences of my own, probably too numerous to enumerate, that would verify that the actual applying of the air before striking individuals or cars or perhaps not individuals but cars or anything, that the application of air has been responsible for lessening the damage.

Q I want to take your attention to the question of whether or not the patrolling of diesel engines is done by firemen on the Santa Fe Railroad?

A It is, very definitely yes.

Q Do you know whether there have or have not been instructions to firemen to patrol?

A Our instructions in the past from the outset, or I might say from the first acquiring of diesels, have been to patrol. They have a very good training program as far as it goes on the

Santa Fe in giving us instructions about what we are to do while patrolling, and also what we can find and what we can do in the way of correcting difficulties that might arise or defects that might exist or might be occurring after our train departs from the terminal.

Q We were informed, I think by Mr. Lawrence and others -- I am not sure about Mr. Lawrence -- that there were some diesel engines on some of the railroads in the United States, the older ones, that had manually operated fans and shutters. Do you have any of those on the Santa Fe?

A We still operate a majority of that kind of engine in freight service.

Q What class?

A The 100 class, in answer to your question. They are all an earlier type of diesel, but we have a magnitude of them in service.

Q And in those cases where there are manually operated fans and shutters does the fireman have any duties with regard to them en route?

A He definitely does. It is necessary that in order to regulate the temperature in the varying degrees of

temperature that we have, probably similar to what you have here but not quite as severe --

Q You mean outside temperatures?

A That is right. He has to engage the fan or engage the fan clutch and lever on each end of the diesel engine. In so engaging this fan clutch or lever, as it is called, he can assist the shutters in performing their duties.

In other words, he puts one shutter on or one fan on leaving the terminal. The outside temperature, we will say, is in the neighbourhood of 50 to 60 degrees. If it gets relatively warmer, even up to 100 or 110, or 120 as we have it sometimes, it is necessary to use both fans. The proper operation of these is pointed out in all of our instructions.

Q You say you still use these in freight service?

A That is true. I don't know exactly how many units of that type we have, but in the 100 class they number from 101 and now they are 190 or something like that, and also the 400 class which is actually the 100 class modified so it can be used in local service.

Q Are those 100 class and 400 class engines used on the portion of the railway over which you were road foreman of engines and over which Mr. Lawrence now is road foreman of engines?

A They are.

Q Without digging out the actual transcript Mr. Lawrence said there would be nothing for the fireman to do when patrolling an engine. What would be your comment on that statement with regard to the 100 class and the 400 class engines that are used in freight service on Mr. Lawrence's territory?

A I know of one incident in answer to your question that would probably point out that the company actually requires a man to do this. It dates back quite some little time. A fireman and engineer on the Missouri Division were both given five demerits apiece for the improper operation of this fan which resulted in a hot engine.

It was through the ignorance of the fireman -- I say ignorance in the sense that he was not educated on the diesel engine and he knew not what to do. But he had been instructed while he was engineer, and it is still expected that

we operate these fans. It is impossible, in other words, to put them on at one place and take them off at another place and regulate your temperature according to our outstanding instructions.

THE CHAIRMAN: Is this 100 type a car body type?

BY MR. LEWIS:

Q Is that a car body or hooded type?

A They are the car body type.

Q And the other classes of engine which you have there I understand are now equipped with automatic shutters?

A That is true; they have automatic shutters and also automatic fan operation.

Q And in the case of those engines, Mr. Lancaster, is there or is there not anything that a fireman or any other person could do with regard to the shutters or fans?

A Oh, yes, there is. There are four contactors located inside the engine-room on our 200 and 300 class, the 1600's, the 325 class and various other engines. Those contactors, if they fail to engage properly can be engaged through inserting a small plug underneath. I have on various occasions done this on passenger and on types of

engines that are similar to this.

BY THE CHAIRMAN:

Q Are those also car body type?

A All that I have enumerated are car body type, yes, sir.

BY MR. SINCLAIR:

Q Just for clarification. You mean where the automatic shutters and fans have failed?

A If I did not say that, that is what I meant. In order to get the fan operation going, the contactors that have failed would have to be fixed. I thought perhaps I said that.

BY MR. LEWIS:

Q That is what you meant?

A Yes. If they fail to operate it is pointed out to us in our instruction classes. In other words, to clarify that. We have diesel instruction cars that periodically cover the territory of the Santa Fe and they point out trouble-shooting practices as well as operation for normal. At the present time they are interesting themselves in quite a bit of discussion about how to keep them regulated along with the injector trouble we are experiencing.

Q I will come to the injectors in a

minute or two, Mr. Lancaster. Do you have any road switchers on your part of the Santa Fe Railroad in freight service or yard service, in freight service or passenger service?

A We have some of those road switchers but they are confined almost entirely to yard service and local service where they can be used more to advantage.

Q I understand that you do not have the hooded type in freight service?

A They are not used on our portion in through freight service. I do not believe they are used on any portion between Chicago and say Galveston. It could be that in portions of Texas they use them in through freight service, but we do not use them as a general rule. We do sometimes.

THE CHAIRMAN: What is meant by local service? That is a new term.

BY MR. LEWIS:

Q What do you mean by local service?

A We have a type of service that performs switching en route, in other words the spotting of grain cars, the lifting of loads, as you call it. They do the necessary station switching between one terminal and another.

Q Mr. Lancaster, perhaps this might

shorten it. In talking to your brothers, to use the Brotherhood term in Canada, you have probably heard the term wayfreight used. Do you know whether that would be the same as local service?

A I would assume it would be. A way-freight, is that where you deliver merchandise to the various stations and you also do the necessary switching and unloading of merchandise and putting of material and so forth all along the route? They are one and the same then.

Q Do you have a service called wayfreight service?

A We have a service that is defined as wayfreight but on our portion we do not have any wayfreight service. That is where in addition to carrying freight and merchandise they carry passengers on, say, a tri-weekly basis in a combination coach and passenger car.

Q Perhaps for our purposes it may not be entirely accurate, but I think it is close enough to suggest that it is similar to our wayfreight service.

You mentioned the 200 class and you showed me the operating manual for diesel electric locomotives issued by the Santa Fe; that is being issued by

1. The first part of the report is a summary of the work done during the year.

2. The second part is a detailed account of the work done during the year.

3. The third part is a summary of the work done during the year.

4. The fourth part is a summary of the work done during the year.

5. The fifth part is a summary of the work done during the year.

6. The sixth part is a summary of the work done during the year.

7. The seventh part is a summary of the work done during the year.

8. The eighth part is a summary of the work done during the year.

9. The ninth part is a summary of the work done during the year.

10. The tenth part is a summary of the work done during the year.

11. The eleventh part is a summary of the work done during the year.

12. The twelfth part is a summary of the work done during the year.

13. The thirteenth part is a summary of the work done during the year.

14. The fourteenth part is a summary of the work done during the year.

15. The fifteenth part is a summary of the work done during the year.

16. The sixteenth part is a summary of the work done during the year.

17. The seventeenth part is a summary of the work done during the year.

18. The eighteenth part is a summary of the work done during the year.

19. The nineteenth part is a summary of the work done during the year.

20. The twentieth part is a summary of the work done during the year.

21. The twenty-first part is a summary of the work done during the year.

22. The twenty-second part is a summary of the work done during the year.

23. The twenty-third part is a summary of the work done during the year.

24. The twenty-fourth part is a summary of the work done during the year.

25. The twenty-fifth part is a summary of the work done during the year.

26. The twenty-sixth part is a summary of the work done during the year.

27. The twenty-seventh part is a summary of the work done during the year.

28. The twenty-eighth part is a summary of the work done during the year.

29. The twenty-ninth part is a summary of the work done during the year.

30. The thirtieth part is a summary of the work done during the year.

the Santa Fe Railroad?

A That is right.

Q To whom is it issued?

A It is issued to enginemen.

Q When you say enginemen whom do you mean?

A Enginemen and firemen, I should say, in order to cover both classes.

Q By the way, does this manual cover General Motors locomotives and others as well?

A It does; it covers every engine, with the possible exception of those acquired last year.

Q I notice the following at page 3017 of this manual:

"If cooling fan motors fail to operate:

(a) Check fan motor switches to see if they are making. If not, they may, at times, be lifted up manually. Located above engine control panel."

Is that the kind of thing you meant when you said that you stuck in a little plug?

A That is true. We have been instructed in our diesel classes to take a 20-amp fuse. It is about the right length. Perhaps they did not suggest that we use a fuse, but we have found out from

practice that it works very effectively because it seems to be the right length. I have seen them engaged with a wooden plug.

--

--

--

1. The first part of the paper is devoted to a general discussion of the problem of the existence of solutions of the system of equations (1) for arbitrary values of the parameters α and β . It is shown that the system has solutions for all values of the parameters α and β if the function $f(x)$ is continuous and has a bounded derivative.

Q The same kind of thing is repeated at page 3018, Mr. Lancaster.

"If the fans are not operating, inspect the fan contactors located above the engine control panel on the bulkhead. It may be that they have not operated but will operate if lifted up manually."

It would be the same kind of instruction?

A That is true. That would be another class of engine.

Q Do you recall without looking at the manual -- otherwise I will show it to you -- which class of engine?

A I think perhaps you are talking about a 200 class, a 300 class, 16 class or 2650 class type road switcher.

Q I was reading as a matter of fact from the 200 class but you say it would apply to the others as well?

A Yes, that is true. These are EMD construction in which they have the four relay temperature controlling panel.

Q You mentioned the 2650 road switcher, you said?

A Yes.

Q There is reference in the manual which you gave me to a class 2650 and the particular point I have referred to is dealt with at page 4617 of the manual. The manual is form 2503. It is a Santa Fe manual dated

1953, and on page 4617, which deals with the 2650 class of engine, these words occur:

"If cooling fan motors fail to operate: 1. Check AC contactors to make sure they are making. If not, they may at times be lifted up manually."

Is that the same kind of thing or is it not?

A That is true. That is the same relay, I believe.

Q And I think you said the 2650 was a road switcher?

A That is right. It is a hooded type road switcher with a little nose on the end.

Q And do your firemen or do they not have things to do in connection with the manual operation or manual lifting of the contactors in the way suggested in this manual?

A They do have something to do with them. In other words, there is a duty in connection with them there. If you could not get proper cooling temperature it would be necessary that you operate these contactors manually.

Q Are you or are you not expected as a fireman on the Santa Fe to learn how to do this and to do it when necessary?

A It has been pointed out to us in our instruction car, in class, that we will do this in order to properly regulate the temperature.

MR. LEWIS: Mr. Chairman, that takes me to the end of one point, sir, and perhaps in view of the desire you expressed --

THE CHAIRMAN: Well, this occasion will suit our convenience. . We will adjourn until tomorrow morning. This does not inconvenience you?

MR. LEWIS: Not at all, sir.

---The Commission adjourned at 3.50 p.m. until 10 a.m., Thursday, June 6, 1957.

BINDING SECT. APR 21 1972

